CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS.

New York, May 3, 1906.

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CONSTRUCTION NEWS.

PLANS AND SPECIFICATIONS ON FILE.

The following Plans (P.), Specifications (S.), and Bidding Sheets (B. S.) may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York:

Bids close.	Work.	Place.	On file.	See issue.
May				
4	Wharf sheds & Rys.	Manila, P. I.	P. & S.	3- 1
4	Sewer construct'n.	Norwich, N. Y.	P. & S.	4-19
*7	Sanitary sewers.	Plainfield, N. J.	P. S. & B. S.	4-26
*8	Tunnel.	Boston, Mass.	P. & S.	4-19
8	Sewers.	New Orleans, La.	P. & S.	3- 8
8	Barge canal.	Albany, N. Y.	P. & S.	4-19
*10	Dam.	Billings, Mont.	P. & S.	4- 5
*14	Caisson lock-gates.	Boston, Mass.	S.	4-19
*14	Dredging.	Detroit, Mich.	S.	4-19
*15	Bridges.	Belle Fourche, S. Dak.	P. & S.	4-19
*15	Bridge.	Philadelphia, Pa.	P. & S.	4-26
*15	Bridges.	Niagara Falls, N. Y.	P. S. & B. S.	4-26
*21	Rebuilding road.	Cape May, N. J.	P. & S.	5- 3
*24	Canal.	Billings, Mont.	P. & S.	4-12
June				
9	Concrete sewer.	Altoona, Pa.	S.	5- 3
Sept.				
15	Hotel bldg.	Manila, P. I.	S.	3-29

*Work advertised in Engineering News.

LIST OF CONTRACTS PENDING.

Bids close. Work. Place. On file. See issue.

LIGHT, HEAT AND POWER PLANTS.

May 3.	Feeders, New York, N. Y	May 3
May 4.	Electrical machinery, Pittsburg, Pa	May 3
May 8.	Electrical supplies, Washington, D. C.	May 3
May 15.	Light plant, Belleville, Kan	May 3
May 28.	**Elec. power plant, Garden City, Kan.**	**Apr. 5**
	Advertised, Eng. News, Apr. 5 to May 10.	
June 1.	**Heating plant, Fishers Island**	**May 3**
	Advertised, Eng. News, May 3.	
June 1.	**Light plant, Huntington, Utah**	**May 3**
June 1.	**Electrical supplies, Fort Meade, S. Dak.**	**May 3**
	Advertised, Eng. News, May 3 to 24.	
June 13.	**Transmission poles, Chicago, Ill**	**Apr. 26**
	Advertised, Eng. News, Apr. 26.	
July 5.	**Water power for sale, Kenora, Ont**	**Mar. 15**
	Advertised, Eng. News, Mar. 15.	

BRIDGES.

May 3.	Steel bridge, Albert Lea, Minn	Apr. 26
May 5.	**Bridges, Grand Rorks, N. Dak**	**Apr. 19**
May 5.	Steel bridge, Breckenridge, Minn	May 3
May 7.	Bridge, St. Paul, Minn	May 3
May 7.	Five iron bridges, Valparaiso, Ind	May 3
May 7.	**Bridge, Lawrence, Ind**	**Apr. 12**
May 7.	Bridge, Lakeport, Cal	Apr. 26
May 7.	Steel bridge, Aberdeen, Wash	Apr. 26
May 7.	Tube bridge, Rensselaer, Ind	Apr. 26
May 8.	Six steel bridges, Castlewood, S. Dak.	May 3
May 11.	Steel bridge, Troy, N. Y	May 3
May 12.	Concrete bridge, Fresno, Cal	Apr. 26
May 14.	**Bridge cables for sale, Pawnee, Okla.**	**Apr. 19**
	Advertised, Eng. News, Apr. 19 and 26.	
May 15.	**Five bridges, Belle Fourche, S. Dak**	**Apr. 19**
	Advertised, Eng. News, Apr. 19 to May 10.	
May 15.	**Bridges, Niagara Falls, N. Y**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 and May 3.	
May 15.	**Bridge, Philadelphia, Pa**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 to May 10.	
May 15.	Bridge, Napa, Cal	May 3
May 16.	**Steel bridge, De Smet, S. Dak**	**Apr. 26**
May 17.	Bridge, etc., Jefferson, O	May 3
May 17.	Bridge, Springfield, O	May 3
May 19.	**Steel bridge, Souris, Man**	**Apr. 19**
May 19.	Highway bridge, San Juan, P. R	Apr. 12
	Advertised, Eng. News, Apr. 12 to 26.	
May 22.	**Steel bridge, Alexandria, La**	**Apr. 26**
May 25.	**Bridge, Wilkes-Barre, Pa**	**Apr. 26**
June 30.	**Bridges, St. John, N. B**	**Apr. 12**

BUILDINGS.

May 3.	**Hospital, Boston, Mass**	**Apr. 12**
May 4.	**Hospital, Prescott, Ariz**	**Apr. 5**
	Advertised, Eng. News, Apr. 5 to 26.	
May 4.	School equipment, Duluth, Minn	May 3
May 7.	Schools, New York, N. Y	May 3
May 7.	**High school, Rockford, Ill**	**Apr. 19**
May 7.	**School building, Athens, O**	**Apr. 19**
May 8.	**Court-house, Woodsfield, O**	**Apr. 19**
May 8.	**Steel cell work, Cheyenne, Wyo**	**Apr. 26**
May 8.	**Wing to State-House, Trenton, N. J**	**May 3**
	Advertised, Eng. News, May 3.	
May 8.	Theater, Philadelphia, Pa	May 3
May 9.	School, Petrolea, Ont	May 3
May 10.	Court-house and jail, Carmel, N. Y	May 3
	Advertised, Eng. News, May 3 and 10.	
May 10.	Building, New York, N. Y	May 3
May 11.	**Post-office and court-house, Los Angeles, Cal**	**Apr. 12**
May 14.	Court bldg, etc., White Plains, N. Y	Apr. 19
	Advertised, Eng. News, Apr. 19 to May 10.	
May 14.	Court-house, Newton, Kan	Apr. 26
May 14.	School, Rockford, Ill	May 3
May 15.	Buildings, Spring City, Pa	Apr. 26
	Advertised, Eng. News, May 3.	
May 15.	**Jail, Folkestone, Ga**	**Apr. 19**
May 16.	Court-house and jail, Sanderson, Tex.	Apr. 26
May 17.	Building, Washington, D. C	May 3
	Advertised, Eng. News, May 3 and 10.	
May 18.	Church, Auburn, N. Y	Apr. 26
May 21.	**Jail, St. Peter, Minn**	**Apr. 26**
May 21.	**Army buildings, Laredo, Tex**	**Apr. 26**
May 21.	City hall, Pensacola, Fla	May 3
May 21.	School, Cleveland, O	May 3
May 22.	Vacuum cleaner, San Francisco, Cal	Apr. 26
June 7.	Court-house, Peru, Ind	Apr. 26
Sept. 15.	**Hotel, Manila, P. I**	**Mar. 29**

WATER SUPPLY AND IRRIGATION.

May 4.	**Water system, Cape May, N. J**	**Apr. 26**
	Advertised, Eng. News, Apr. 26.	
May 7.	**Pipe laying, Perrysburg, O**	**Apr. 19**
	Advertised, Eng. News, Apr. 19.	
May 8.	**Head house, etc., Cincinnati, O**	**Apr. 26**
May 9.	Vault pans, New York, N. Y	May 3
May 9.	Hydrants, New York, N. Y	May 3
May 10.	Water-works, Winfield, Kan	May 3
May 10.	Iron pipe, St. Stephen, N. B	May 3
May 14.	Improvements, Fostoria, O	May 3
	Advertised, Eng. News, May 3.	
May 15.	**Water pipe, New Orleans, La**	**Apr. 5**
May 17.	Irrigation plant, Truxton, Ariz	May 3
May 18.	**Stand-pipe, Chatham, Va**	**Apr. 26**
	Advertised, Eng. News, Apr. 26.	
May 21.	**Infiltration gallery, Columbus, Ind**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 and May 3.	
May 22.	Improvements, Fort Peck, Mont	May 3
May 23.	Water tunnel, Chicago, Ill	May 3
	Advertised, Eng. News, May 3.	
May 26.	Pumping engine, Rockford, Ill	May 3
June 7.	Water mains, North Chicago, Ill	May 3
No date.	**Excavating for lake, Central Valley, N.Y.**	**Apr. 26**
	Advertised, Eng. News, Apr. 26.	

SEWERAGE.

May 4.	**Sewer, Jacksonville, Fla**	**Apr. 19**
May 4.	Sewerage, Norwich, N. Y	Apr. 19
	Advertised, Eng. News, Apr. 19 and 26.	
May 5.	Sewers, Edgeworth, Pa	May 3
May 7.	Sewers, Hillsboro, N. Dak	May 3
May 8.	Sewer construction, Marion, Ind	May 3
May 8.	Open drain, Knoxville, Ia	May 3
May 8.	Sewers, Jacksonville, Ill	May 3
May 8.	Sewers, New Orleans, La	Mar. 8
	Advertised, Eng. News, Mar. 8 to May 3.	
May 8.	Sewers, Jacksonville, Ill	Apr. 26
May 8.	Sewer construction, Belleville, Ill	Apr. 26
	Advertised, Eng. News, Apr. 26.	
May 9.	Storm sewers, etc., Altoona, Pa	Apr. 26
May 10.	Drain pipe, New York, N. Y	May 3
May 11.	Sewer, St. Louis, Mo	May 3
May 11.	**Sewers, Elkhart, Ind**	**Apr. 26**
May 12.	Sewers, Pipestone, Minn	Apr. 26
May 12.	**Sewers, Pittsburg, Pa**	**Apr. 12**
May 12.	Sewer outlet, Fort McIntosh, Tex	May 3
May 14.	Sewer, Oshkosh, Wis	Apr. 26
May 15.	Sewer construction, etc., Ravenna, O.	Apr. 26
May 15.	Sewer construction, Sheboygan, Wis	May 3
May 15.	Sewer, Rockford, Ill	May 3
	Advertised, Eng. News, May 3.	
May 16.	Sewer, Waterford, N. Y	May 3
	Advertised, Eng. News, May 3 and 10.	
May 21.	Sewer additions, Montgomery, Ala	May 3
June 1.	Drains and sewers, Pensacola, Fla	Apr. 26
	Advertised, Eng. News, May 3 to 24.	
June 15.	Sewer construction, Escanaba, Mich	May 3
June 26.	**Sewer, Vacaville, Cal**	**Apr. 5**
No date.	**Sewer, Pueblo, Colo**	**Apr. 19**
No date.	Sewer construction, Evansville, Ind	May 3

STREETS AND ROADS.

May 2.	**Road improvement, East Hampton, N. Y.**	**Apr. 26**
	Advertised, Eng. News, Apr. 26.	
May 2.	**Road construction, Richmond, Ind**	**Apr. 26**
May 5.	**Gravel road, Colebrook, N. H**	**Apr. 26**
May 6.	**Brick paving, Urbana, Ill**	**Apr. 26**
May 7.	**Paving, etc., Montgomery, Ala**	**Apr. 26**
May 7.	Reducing grade, Watsonville, Cal	Apr. 26
May 7.	**Brick paving, Ottumwa, Ia**	**Apr. 26**
May 7.	**Gravel roads, Rockville, Ind**	**Apr. 19**
May 7.	**Paving & curbing, Portsmouth, Va**	**Apr. 12**
	Advertised, Eng. News, Apr. 12 and 19.	
May 7.	Gravel road, Thompson, Conn	May 3
May 7.	Roadway, Atlanta, Ga	May 3
May 7.	Asphalt paving, New Orleans, La	May 3
May 7.	Macadam road, Decatur, Ill	May 3
May 7.	Paving, Topeka, Kan	May 3
May 7.	Sidewalk construction, Fargo, N. Dak.	May 3
May 8.	Paving, Buffalo, N. Y	May 3
May 8.	Pavement, etc., Edwardsville, Ill	May 3
May 8.	Grading, etc., La Couner, Wash	May 3
May 8.	**Road construction, Boston, Mass**	**Apr. 12**
May 8.	**Macadamized roads, Vincennes, Ind**	**Apr. 12**
May 8.	**Road, Brazil, Ind**	**Apr. 12**
May 8.	**Macadam roads, Princeton, Ind**	**Apr. 19**
May 8.	**Gravel roads, Versailles, Ind**	**Apr. 19**
May 8.	**Macadam road, Versailles, Ind**	**Apr. 19**
May 8.	**Macadam road, Madison, Ind**	**Apr. 19**
May 9.	**Stone paving, Woonsocket, R. I**	**Apr. 26**
	Advertised, Eng. News, Apr. 26.	
May 9.	Grading, etc., New York, N. Y	May 3
May 9.	Grading, etc., Cleveland, O	May 3
May 9.	Grading, etc., Ottawa, Kan	May 3
May 10.	Limestone screenings, New York, N. Y.	May 3
May 11.	**Grading, paving, etc., Suffolk, Va**	**Apr. 19**
	Advertised, Eng. News, Apr. 19 and 26.	
May 12.	**Paving, Westerville, O**	**Apr. 26**
May 14.	Gravel road, Merrimack, N. H	May 3
May 14.	Crossings and walks, Exira, Ia	May 3
May 15.	Street improvements, Shelbyville, Ind.	May 3
May 15.	Grading, etc., New York, N. Y	May 3
May 19.	Street paving, cement, Mansfield, O	May 3
	Advertised, Eng. News, May 10.	
May 19.	Macadam road, Clinton, Tenn	May 3
May 19.	Macadamizing, Cincinnati, O	May 3
May 24.	Road construction, Dandridge, Tenn	May 3
May 25.	Paving and curbing, Washington, D. C.	May 3
	Advertised, Eng. News, May 3.	
May 28.	Roads and walks, Fort Wood, N. Y	May 3
May 31.	Grading, North Chicago, Ill	May 3
	Advertised, Eng. News, May 3 and 10.	
No date.	Grading, etc., Greenfield, Ind	May 3
No date.	**Paving material, Phoebus, Va**	**Apr. 19**
No date.	**Paving, Nashville, Tenn**	**Apr. 19**

TO ENGINEERS AND CONTRACTORS

ENGINEERING NEWS desires to obtain the **earliest possible reliable information** concerning all projected work. We will appreciate any items that you may send us. Copies containing such information will be mailed to you, upon request.

ADDRESS

Wainwright A. S. Randall, Editor,
The Construction News Department.

MISCELLANEOUS CONTRACTS.

May 4.	Wharf sheds & Rys., Manila, P. I	Mar. 1
	Advertised, Eng. News, Mar. 15 to 29.	
May 7.	**Iron fence, Prescott, Ariz**	**Apr. 12**
	Advertised, Eng. News, Apr. 12 and 19.	
May 7.	**Street cleaning, Washington, D. C**	**Apr. 19**
	Advertised, Eng. News, Apr. 19 and 26.	
May 7.	Fire hose, Albany, N. Y	May 3
May 8.	Hire of dredging plants, New York, N. Y.	Apr. 12
	Advertised, Eng. News, Apr. 12 to May 3.	
May 8.	Dredging, New York, N. Y	Apr. 12
	Advertised, Eng. News, Apr. 12 to May 3.	
May 8.	Tunnel, Boston, Mass	Apr. 19
	Advertised, Eng. News, Apr. 19 to May 3.	
May 8.	Barge canal, Albany, N. Y	Apr. 19
May 8.	**Sprinkling, New York, N. Y**	**Apr. 26**
May 8.	Covering steel sheds, New Orleans, La.	May 3
May 9.	Barge canal, Albany, N. Y	Apr. 19
May 10.	Drainage, Forest City, Ia	May 3
May 10.	Dikes, New York, N. Y	Apr. 12
	Advertised, Eng. News, Apr. 12 to May 3.	
May 10.	Dam, Billings, Mont	Apr. 5
	Advertised, Eng. News, Apr. 5 to 26.	
May 10.	Jetties, etc., Collinwood, O	May 3
May 10.	Ditch, Ft. Dodge, Ia	May 3
May 13.	Pig lead, Youngstown, O	Apr. 26
	Advertised, Eng. News, Apr. 26.	
May 14.	Caisson lock-gates, Boston, Mass	Apr. 19
	Advertised, Eng. News, Apr. 19 and 26.	
May 14.	**Dredging, Detroit, Mich**	**Apr. 19**
	Advertised, Eng. News, Apr. 19 to May 10.	
May 21.	**Stone breakwater, Buffalo, N. Y**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 to May 17.	
May 21.	Miscell. supplies, Panama	May 3
	Advertised, Eng. News, May 3 and 10.	
May 22.	Vacuum cleaning, San Francisco, Cal.	Apr. 19
	Advertised, Eng. News, Apr. 19 and 26.	
May 23.	**Dredging, New York, N. Y**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 to May 17.	
May 23.	Water tunnel, Chicago, Ill	May 3
	Advertised, Eng. News, May 3.	
May 24.	Canal, Billings, Mont	Apr. 12
	Advertised, Eng. News, Apr. 12 to May 10.	
May 24.	**Subway, Auburn, N. Y**	**Apr. 19**
	Advertised, Eng. News, Apr. 19.	
May 28.	**Lock and dam, Dallas, Tex**	**Apr. 12**
	Advertised, Eng. News, Apr. 12 & 19 and May 7 & 24.	
May 29.	Main canal, Belle Fourche, S. Dak	Apr. 26
	Advertised, Eng. News, Apr. 26 to May 17.	
June 2.	Two battleships, Washington, D. C.	Apr. 5
June 4.	Ditch, Muscatine, Ia	May 3
June 6.	Dredging plant, Cuba	Apr. 5
	Advertised, Eng. News, Apr. 5 to May 31.	
June 15.	Distributing system, Mitchell, Neb	May 3
	Advertised, Eng. News, May 3 to 24.	
June 27.	Storage works, Portland, Ore	Apr. 26
	Advertised, Eng. News, Apr. 26 to May 10.	
June 28.	Dam, Hermiston, Ore	May 3
	Advertised, Eng. News, May 3 to June 7.	
Sept. 4.	Railway supplies, Siam (Foreign)	Apr. 26
No date.	Electric railway, La Salle, Ill	Apr. 12

CIVIL SERVICE EXAMINATIONS.

May 3.	**Asst. Elec. Engr., California**	**Apr. 5**
May 9.	**Nautical Expert, Washington, D. C.**	**Apr. 12**
May 12.	**Asst. Sanitary Engr., Albany, N. Y.**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 and May 3.	
May 12.	**Bridge Draftsman, Albany, N. Y**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 and May 3.	
May 12.	**Consult. Sanitary Engr., Albany, N. Y.**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 and May 3.	
May 14.	**Heliotroper, New York, N. Y**	**Apr. 19**
	Advertised, Eng. News, Apr. 19.	
May 16.	**Draftsman, Washington, D. C**	**Apr. 19**
May 16.	**Engineer, Miller, Arizona,**	**Apr. 19**
May 16.	**Linotype Machinist, Philippine Service**	**Apr. 19**
May 16.	Laboratory Asst., Washington, D. C.	May 3
May 16.	Asst. Physicist, Washington, D. C	May 3
May 16.	Asst. Chemist, Washington, D. C	May 3
May 19.	**Nautical Expert, Washington, D. C.**	**Apr. 19**
May 23.	Mechanician, Virginia	May 3
May 26.	**Asst. C. E., Albany, N. Y**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 and May 3.	
May 26.	**Bridge Designer, Albany, N. Y**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 and May 3.	
May 26.	**C. E. Draftsman, Albany, N. Y**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 and May 3.	
May 26.	**Jr. Bridge Draftsman, Albany, N. Y.**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 and May 3.	
May 26.	**Leveler, Albany, N. Y**	**Apr. 26**
	Advertised, Eng. News, Apr. 26 and May 3	
May 31.	Asst. Engr., New York, N. Y	May 3
June 6.	Mech. Draftsman, Panama	May 3
June 6.	Assay Asst., Washington, D. C	May 3
June 6.	Aid, Coast Survey, Washington, D.C.	May 3
June 6.	**Draftsman, Idaho, etc**	**May 3**

PROPOSED WORK

ENGINEERING NEWS desires to obtain the **earliest possible reliable information** concerning all projected work. We will appreciate any items that you may send us. Copies containing such information will be mailed to you, upon request.

Address, **WAINWRIGHT RANDALL**
Editor Construction News

RAILWAYS.

The names of parties awarded contracts are printed in capital letters.

ASHEVILLE LOOP LINE.—This company has been chartered to take over the line of the Asheville & Craggy Mountain Railway, three miles long, and also to build other lines within 50 miles of Asheville, N. C. The incorporators are Frederic Culver, R. H. Tingley, and W. B. Gwyn.

ATLANTIC & BIRMINGHAM.—It is stated that this company has been granted a charter to build the proposed branch from Atlanta to Warm Springs, 70 miles. George D. Wadley is Vice-Pres. and Gen. Mgr., at Atlanta. It was originally planned to build from Atlanta to Wedowee, Ala.

ATLANTIC COAST LINE.—A press report from Wilmington, N. C., announces that this company will spend $175,000 in the improvements of its terminal facilities at Wilmington. The improvements will consist of an extension of the freight yard limits and enlargement of trackage facilities through the wholesale and manufacturing districts. W. N. Royall is Gen. Mgr., at Wilmington.

ATCHISON, TOPEKA & SANTA FE.—The report that the Texas & Gulf Ry. has been purchased by the Atchison, Topeka & Santa Fe Railway has been officially confirmed. An extension of five miles will be built to carry the previous extension to a point 20 miles south of Timpson, and that a further extension to connect with the Gulf, Colorado & Santa Fe Railway will probably be built. M. H. Lillard is Gen. Supt., at Longview, Texas.

BLYTHEVILLE, BURDETTE & MISSISSIPPI RIVER.—Company has been chartered in Arkansas with a capital of $240,000, of which $40,000 has been subscribed, and will build a line 20 miles long from Blytheville, Ark., to a point on the Mississippi River near Luxora, Ark., with a branch a mile long to Burdette, Ark., which will be headquarters. The directors are W. A. Gilchrist, M. B. Cooper, A. H. Hardy, R. S. Gibson, and A. H. Coosby.

BRINSON RY.—This company announces that it will apply for a charter in Georgia, to build a line 180 miles long from Savannah to Athens, Ga. Capital, $1,000,000, which may be increased to $5,000,000. The incorporators are George M. Brinson, Charles Neville, Y. E. Bargeron, W. C. Myers, C. H. Mason, J. J. Bezemore, B. F. Rogers and W. H. Deolach. R. T. Blandford and J. F. Baxter are to make a survey immediately. Construction is to begin when 25 miles are located.

BALTIMORE & OHIO.—Surveys are completed for elevation of company's tracks in Chester, Pa. Plans are under way for proposed elevated structure. J. B. Dickson is Ch. Engr. M. W., at Baltimore, Md.

CANADIAN PACIFIC. — Appropriations have been made for improvements to its lines in the Province of Alberta as follows: Between Calgary and Laggan, $10,000; on the Edmonton branch, $35,000; on the McLeod branch, $75,000; other work, $65,000.

Contract has been let to HARGRAVE BROS., of Winnipeg, Man., to grade 40 miles of this company's branch line from Stoughton, on the Moose Mountain section, to Weyburn. Work is to be started at once, it is reported, and finished this fall.

CHEROKEE, UNION & SPARTANBURG. —This company has organized by electing the following directors: A. N. Wood, Pres. and Treas.; W. C. Hamrick, Vice-Pres. and Secy; T. B. Butler and J. C. Otts, Attorneys, and T. E. Moore. Messrs. Butler and Otts are to secure right-of-way immediately. The proposed line is from Gaffney, S. C., to the North Carolina boundary, and also southeast from Gaffney.

CHICAGO & NORTHWESTERN. — It is said that this company plans improvements on its Iowa division at a cost of $320,000. The work includes the installation of Hall block signals between Clinton and Otis, and Logan to Council Bluffs, total of 115 miles. J. A. Peabody is Sig. Engr., at Chicago.

CHICAGO, ROCK ISLAND & PACIFIC.—Official announcement has been made by this company that it will spend during the present summer $1,250,000 for improvements on its main lines between Davenport, Iowa, and Council Bluffs. About 50 miles will be reballasted, and the sections between Newton and Colfax, Booneville, and Earlham, and Menlow and Atlantic, will be entirely rebuilt. All the bridges, about 20 in number, are to be strengthened or rebuilt. The work also calls for the laying of 250,000 new oak ties and the building of 50,000 rods of fence. About 2,500 cu. yds. of crushed stone will be used for riprapping embankments where there is danger from overflowing streams. J. M. Brown is Dist. Engr., at Davenport.

DELAWARE & EASTERN.—Otto F. Wagenhorst, Ch. Engr., Downsville, N. Y., informs us that JOHN F. DOLAN, of Elizabeth, N. J., has contract for 18 miles on main line, from East Branch to Pepacton, N. Y. Surveys are completed and right-of-way secured for the proposed line from Union Grove to Andes, eight miles. Work is to be done by the company.

GRAND TRUNK PACIFIC.—F. W. Morse, Gen. Mgr., at Montreal, Que., states that bids will soon be asked for building an additional 200 miles of the proposed road between Edmonton, Alta., and the Rocky Mountains. It is expected to have the road in operation between the Rocky Mountains and Fort William, Ont., in time to handle part of the 1907 crops.

GENESEE RIVER R. R. (Erie).—We are officially advised that contracts will be let about May 15 for building this railroad from Cuba to Hunts, N. Y., via Belfast, 33 miles. Francis Lee Stuart is Ch. Engr., 11 Broadway, New York.

GREENLEAF JOHNSON LUMBER CO.—We are officially advised by E. Allen Jones, Supt., Vaughan, N. C., that no bids were received on April 25 for constructing three miles of roadbed. It is desired to award contract as soon as possible for this work, which includes approximately 22,000 cu. yds. of excavation in Warren County, N. C. The company has graded six miles of line and track is laid on 3½ miles. Three miles additional are located and staked out. Besides these three miles, company will be ready to let contract for six miles more when located. John D. Letcher, Vaughan, is Ch. Engr.

HOLSTON RIVER VALLEY RY.—Contract is reported to have been awarded to the CALLAHAN CONSTRUCTION CO., of Knoxville, Tenn., for building this railway from Persia, Tenn., to Moccasin Gap, Va.

LEHIGH VALLEY.—Under the name of the Lehigh & Lake Erie Ry., which was granted a charter some years ago, it is said that the Lehigh Valley R. R. will build a line, ten miles long, around Buffalo, N. Y. The proposed line will touch the Lackawanna Steel Co.'s plant and continue to where the Lake Shore & Michigan Southern and the terminal road of the New York Central & Hudson River connect. It will cross the Lake Shore, the Erie, the Pennsylvania and the N. Y., Chicago & St. Louis Rys., and thence by William St., to a connection with the main line of the Lehigh Valley. Walter G. Berg is Ch. Engr., 143 Liberty St., New York.

LORAIN & WEST VIRGINIA.—H. W. SEAMAN, Pres., 821 Perry-Pane Bldg., Cleveland, Ohio., states that this road, which is intended to give the Wheeling & Lake Erie an entrance into Lorain, O., will extend from Lorain to Wellington, O., 25 miles. Grading is now in progress. The contractors are G. M. KEPNER, of Fort Dodge, and F. J. PETERSON, of Cedar Rapids, Iowa; I. W. Troxel, is Ch. Engr., Cleveland, Ohio.

LARAMIE, HAHNS PEAK & PACIFIC.—This company has sold $800,000 worth of bonds and preparations are being made to resume construction on the line from Laramie to Centennial, Wyo., 100 miles. About 30 miles of the line were graded and seven miles of track were laid in 1904. Isaac Van Horn, of Boston, is the promoter; Fred. A. Miller is Pres., and R. D. Stewart, is Ch. Engr., both of Laramie, Wyo.

MICHIGAN CENTRAL.—In regard to the item in last week's issue of Engineering News, George H. Webb, Ch. Engr., at Detroit, Mich., advises us that the work this company is doing in Canada is 94½ miles of second-track, most of which is done by company's forces.

MISSISSIPPI GARDEN RY.—Company has been incorporated to build a line from Hattiesburg, Miss., via Taylorsville, and Forest to Carthage, Miss., about 100 miles. The general direction of this line is north and south, The incorporators are S. B. Floeter, of New Albany, Miss.; G. A. Flater, of Toledo, Ohio, and W. F. Floeter, of Taylorsville, Miss.

MUHLENBURG & EASTERN.—This company has been incorporated in Kentucky with $25,000 capital to build a line 20 miles long from Central City to Rochester, Ky., for the purpose of developing coal mines. The incorporators are G. T. Westerfield, T. O. Jones of Central City and John R. Drake, W. F. Ennis and Niel Murray of Bowling Green, Ky.

NORTH & SOUTH RY.—P. A. McCarthy, Ch. Engr., at Lufkin, Tex., writes us that "we have just completed the preliminary survey of 31 miles of railroad for the North & South Ry., between Lufkin and Groveton, Texas. Data and sppcifications are now being prepared, and we desire to commence construction at the earliest possible moment, and have this portion of the road in operation by January, 1907. The earth work will average probably 20,000 yds. per mile to be paid for in excavation measurement, and where excavation is insufficient to make embankment the excess will be paid for in embankment measure. Clearing approximately 350 acres; grubbing approximately 125 acres; four trestles aggregating 7,000 ft., and one truss 112 ft.; 27 lines of drain pipe, aggregating 2,000 lin. ft.; two water stations; 37 hundred tons of steel, together with angle bars, bolts and necessary spikes, switches, switch stands, etc. We shall be pleased to hear from contractors and interested parties relative to this construction." Noted on April 19.

PINE BEACH MINIATURE R. R.—We are officially advised that contract for equipment has been awarded to CAGNEY BROS., 72 Broadway, New York. This company will build a 2-mile line at Pine Beach, Va., as noted last week under Electric Railways: Norfolk, Va. It is planned to have part of the line in operation by May 15.

SALEM, SPRINGFIELD & PEORIA.—Incorporated in Illinois to build a railroad from a point on the Chicago & Eastern Illinois, near Salem, through the counties of Marion, Fayette, Montgomery, Christian, Sangamon, Menard, Logan and Tazewell to Peoria. Capital stock, $100,000. Incorporators: Jonathan P. Reeves, Albert M. Trueb, John J. Duck, Fred. W. Krohn and Edward H. Senneff, all of Chicago.

SCHOODIC STREAM RAILWAY.—Company has been incorporated in Maine to build a branch of the Bangor & Aroostook from Millinocket southeast to Medway, 18 miles. Capital stock, $72,000. Incorporators: Franklin W. Cram, Pres. of the Bangor & Aroostock:- Edward Stetson, George T. Thatcher, F. H. Appleton, Edward Wood, Linwood C. Tyler, Charles A. Gibson and Thomas Upham Coe, all of Bangor, and Albert A. Burleigh, Vice-Pres. of the Bangor & Aroostook, and Parker C. Burleigh, of Houlton.

TOPEKA & NORTHWESTERN.—Contracts will be let in the near future for extending this line, a branch of the Union Pacific from Onaga to Marysville, Kan., about 32½ miles. Parties wishing to do sections of grading, using only their own forces, will be furnished with the necessary information by W. D. Richardson, Assistant Engr., Marysville, Kan. R. L. Huntley, Omaha, Neb., Ch. Engr.

VANDALIA.—It is planned to build 13¾ miles of second track and 7½ miles of double track on new alinement in Indiana this year. F. T. Hatch, St. Louis, Mo., is Ch. Engr.

VIRGINIA AIR LINE.—Incorporated in Virginia to build a railroad from Bremo to Lindsay, about 30 miles, to connect two divisions of the Chesapeake & Ohio. Capital stock, $25,000. T. O. Troy, Pres., Amherst, Va.; F. M. Robertson, Secy., Charlottesville, Va.

WHITE DEER & LOGANTON.—Charles Steele, Pres., Sunbury, Pa., writes us that survey is nearly completed for line from Whitedeer west to Loganton, ten miles, and that part of the road is under construction. Contracts for completing the railroad will be let soon.

ELECTRIC RAILWAYS.

The names of parties awarded contracts are printed in capital letters.

WESTERLY, R. I.—Contract has been awarded to the NATIONAL CONSTRUCTION & EQUIPMENT CO., 42 Broadway, New York, for building line for the Westerly & Connecticut Electric Ry. from White Rock, R. I., to Westerly, about three miles. This railway is an extension of the Norwich & Westerly Ry., which railway was noted under "Norwich, Conn.," on April 5.

OSWEGATCHIE, N. Y.—Charles H. Townsend, Jr., Secy., of the Wallula & Oswegatchie R. R. Co., 143 Liberty St., New York City, is quoted as saying that it is proposed to construct about 51 miles of line with extensions, to cost in all about $500,000. The motive power is to be steam or electricity. Edward S. Farrow, 143 Liberty St., New York City, is Pres., and Chester A. Entrekin, of Wallula, Assistant Ch. Engr.,

GREENCASTLE, PA.—We are officially advised that contracts will be let about June 1 for building the Chambersburg & Mercersburg Division of the Chambersburg, Greencastle & Waynesboro St. Ry., from Chambersburg to Greencastle and from Greencastle to Foltz, 25 miles. Right-of-way is nearly all secured. Capital is ready. T. M. Nelson is Pres., at Chambersburg, Pa. Charles Lear is Ch. Engr., at Greencastle.

PITTSBURG, PA.—The Pittsburg Harmony Butler & Newcastle Ry. Co. has been organized to build and acquire lines connecting Pittsburg with Butler, Newcastle, Perrysville, Evans City, Zelienople, Ellwood City, Harmony, Callery and Hazeldale. This will be a holding and operating company for several smaller companies now projected or under construction. Stanley C. Vickers, C. G. Gerber, Harry Ethridge, E. M. Balsinger, and T. C. Hamilton are interested.

CONSHOHOCKEN, PA.—The Conshohocken, Jenkintown & Bustleton St. Ry. Co. will build an electric railway from this place to Philadelphia. Contracts are to be let for power-houses. R. L. Hughes, Land Title Bldg., Philadelphia, is representative.

CHRISTIANSBURG, VA.—R. A. Marr, C. E., Blacksburg, Va., is considering plans for an electric railway from Cambria, on the Norfolk & Western Railway, to Christiansburg, Va. Dr. E. S. Hogan and others are interested.

GREENSBORO, N. C.—E. J. Justice, who was recently granted a franchise, states that the survey is about completed for the Greensboro & High Point Interurban Railway, which will first be built between the two points named, 16 miles. Construction is expected to begin soon. The engineer is the Gwathmey-Mackall Co., of Norfolk, Va. The directors of the railway are: Pres., W. D. Pender, Norfolk, Va.; Vice-Pres., J. W. Perry, Norfolk, Va.; Secy. and Treas., E. W. Wolcott, Norfolk, Va.; H. K. Wolcott, Norfolk; H. Bayard Hodge, Philadelphia; James H. Dawes, Philadelphia, and E. J. Justice, Greensboro, N. C.

CHARLESTON, S. C.—We are officially advised that contracts will be let very soon for construction of the Charleston & Summerville Elec. Ry. from Charleston to Summerville, 22 miles. Surveys are completed and right-of-way and capital secured. Ogden Edwards, Troy, Ohio, is Pres. W. A. Carlisle, Gainesville, Ga., is Ch. Engr. Geo. Tupper, Summerville, is Secy.

IUKA, MISS.—The North Mississippi Traction Co., which proposes to build a dam across Bear Creek, 14 miles south of Iuka, Miss., to cost $50,000, and which will construct an electric railway running from Indian Creek, on the Tennessee River, southerly to Columbus, Miss., has been organized. The company proposes to utilize the power from this dam to operate the dynamos of the traction line. Among the incorporators are J. W. Buchanan, one of the attorneys of the 'Frisco system, and A. H. Longino, former governor of Mississippi. It is said that the company has secured ample financial backing for this enterprise, which will mean much for the northern half of Mississippi.

NEW IBERIA, LA.—Joseph T. White, Secy. of the Bayou Teche Power & Traction Co., New Iberia, writes us that this company will build a line from New Iberia to Berwick. Right-of-way secured, also 25-year franchise. Capital is partly secured. Stocks and bonds are for sale. Contracts for construction will be awarded after June 10. F. A. Augur is Pres., 1040 Baronne St., New Orleans.

CLEVELAND, OHIO.—The Lake Erie Terminal & Southern Ry. Co. has awarded a contract to the TERMINAL TRACTION CO., 406 American Trust Bldg., Cleveland, for building its proposed electr ad from Cleveland, Ohio, south to Ak about 3 miles. Track has been laid f e miles. The work includes the buildin two large bridges. H. B. Camp is Pre d R. J. Wood, Ch. Engr.

DELAWARE, OHIO.—The Magnetic Springs Railway Co. wood & the right-of-way for its line purchased ware, Magnetic Springs and en Dela- is planning soon to begin the ood, and the road. Christopher Magee, uction of burg, is Pres. of the compan of Pitts- Buck, of Delaware, is Gen. Mg d H. E.

INDIANAPOLIS, IND.—We officially informed that the ELECTRIC INSTAL- LATION CO., Monadnock Bl Chicago, has been awarded contract fo complete construction and equipment o Indian- apolis, Newcastle & Toledo ric Ry. Co.'s road. Work will comm immediately on the 43-mile division ween Indianapolis and Newcastle halmers company's steam and electric achinery and car equipments will be Among those interested in the proje D. M. Berry and W. E. Stevenson, of anapolis; Eli Marvin, of Frankfort; an has. S. Hernly and Eugene H. Bundy, Newcastle. The company's proposed m comprises 140 miles within the state Indiana.

LAFAYETTE, IND.—The Com oners of Tippecanoe County have granted franchise to the Lafayette & Logansport T ion Co. for the construction of an electr e north to the Carroll County line, and ommissioners of Carroll County ha likewise granted a franchise to build th gh that county. Work is to begin at o James Murdock, of Lafayette, represent he company.

NEW CASTLE, IND.—C. N. M els, promoter of the Indianapolis, New astle & Toledo Electric Railroad, is report to have announced that work will begin a once on the line between Indianapolis and w Castle. Three branch lines will be bu one to connect with Greenfield, one with hmond and one with Muncie.

ANDREWS, IND.—The Andrews Electric Railway & Power Co. will soon invite bids for the construction of a street railroad, power plant and equipments. Company was recently incorporated with $35,000 capital to construct, maintain and operate a street railway system in the city of Andrews. The following officers were elected: H. B. Thornton, Pres.; T. D. Devire, Vice-Pres.; and W. E. Nichols, Secy.

KALAMAZOO, MICH.—At a recent meeting of the stockholders of the Michigan Traction Co. along with the officers of the Michigan United Railways Co. it was announced that about $500,000 would be spent in straightening curves between this city and Augusta, with a view to shortening the time required to make the trip. James R. Elliott is Gen. Mgr. and Pur. Agt. of the Traction Co., at Lansing, Mich.

OWOSSO, MICH.—Permission has been granted to the Owosso & Corunna St. Ry. Co. to extend its franchise, and, according to President George H. Stephenson, 429 Chestnut St., Philadelphia, the work on the road will be extended to Durand at once. The road must be in operation to Durand by Dec. 1, 1906, according to the terms of the amended franchise. Lawrence Manning is Gen. Mgr., at Owosso.

DENVER, COLO.—The Denver Northern Ry. Co. has been incorporated with a capitalization of $3,000,000. The Denver "Times" states that "the directors include W. C. Brown, Vice-Pres. of the Vanderbilt roads; his brother, Charles H. Brown, an Illinois banker; Morris J. Jones, of Boulder, and Robert S. Law and Charles W. Waterman, of Denver. Mr. Law is Pres. and Charles H. Brown Secy. of the company, which is the parent of the Denver Terminal Ry. Co. The company proposes to build an electric system between Denver and Cheyenne, via Louisville, Lafayette, Boulder, Longmont, Loveland, Fort Collins, Berthoud and other towns in northern Colorado. A branch is also planned from Fort Collins to Greeley, making about 100 miles in all. The papers show that terminal facilities have been secured at private sale at 23d and Blake Sts., where the shops and car barns will be located. The road is to enter Denver near Utah Junction and will parallel the Moffat and Burlington roads. It will parallel Fox St. on private ground, crossing the Platte River on a $300,000 viaduct and enter the city proper at 23d and Blake Sts. The viaduct will be 4,000 ft. long. The Denver Terminal Railway Co., now asking a franchise along 23d, Blake, 18th, Glenarm, Broadway and 19th Sts, and thence back to Blake, making a loop from the Brown Hotel, will be absorbed by the Northern Railway Co. Should the franchise be granted Messrs. Brown and Law promise to begin construction the day after the election. Mr. Jones says that large orders already have been placed for ties and contracts are being made for rails. The main power plant of the system will be located at Louisville, in the northern coal fields. The entire system is expected to cost about $3,500,000. The Browns and their associates are making this investment for themselves and they declare that no other railroad is interested in the project."

GOLDEN, COLO.—It is reported that Geo. N. Davenport and others are planning to build an electric road from Golden, Colo., to the top of Lookout Mountain, 7,000 ft. above the sea level. The proposed route is along the side of the hill for a distance of eleven miles. No bridges will be required. The total rise from the starting point to the terminus on the mountain will be about 1,420 ft.

PORTLAND, ORE.—Francis I. McKenna, 606 Commercial Bldg., Portland, one of the promoters of the municipal electric belt line project, informs us, regarding the plan, that "the legal battles usual in such undertakings are still in progress. It may be a year before complications can be unkinked for letting contracts." We were recently advised that an "Initiative Committee" has been appointed to consider plan for surveys and for securing right-of-way. The question of issuing city bonds will be decided by vote at election to be held in June. It is planned to commence operations immediately after the election. The projects contemplated include municipal ownership of docks, two general utility bridges above ship masts, 25 miles of boulevards, 25 miles of railroads, a system of parks, all to cost, approximately, $5,000,000. It is said that vote will be almost unanimously in favor of the project.

LOS ANGELES, CAL.—The Pacific Electric Ry. Co. will build five miles of new track from Newport Beach. George E. Pillsbury is Ch. Engr., Los Angeles.

SAN FRANCISCO, CAL.—The total general loss to the physical property of the United Railroads of San Francisco in the recent earthquake and fire is estimated to have been $2,000,000, according to official statement of George H. Davis, of Ford, Bacon & Davis, Engrs., 24 Broad St., New York. Mr. Davis was in San Francisco in charge of the engineering department of the United Railroads. George F. Chapman, at San Francisco, is Gen. Mgr. This company operates about 260 miles of electric, cable and horse lines.

The Municipal Street Railways Co., of San Francisco, was recently incorporated to build a system of street railways for San Francisco, covering the entire city. The expectations were that this company would build a subway system and turn it over to the city at the expiration of ten years, but it is not known how these plans will be affected by the consequences of the earthquake. Capital stock, $14,000,000, of which $4,500,000 has been subscribed. Incorporators: Claus Spreckels, James D. Phelan, George Whittell, Rudolph Spreckels and C. S. Wheeler.

GALT, ONT.—We are informed by James Ryerson, American Consular Agent, at Galt, that the Hamilton, Waterloo & Guelph Ry. Co. has made application to city of Hamilton for right-of-way through that city. The railway will start from Hamilton and continue as a single line to Rock Chapel, where it will raise the Niagara Escarpment. A branch will run to Galt, through Greensville, Flamboro, Rockton and Sheffield, a distance from Hamilton of 26 miles. The branch to Guelph will pass through Hoysland, Strabane, Freelton, Morristown and Aberfoyle, a distance from Hamilton of 32 miles. There are also proposed extensions from Galt to Elmira and from Guelph to Fergus and Elora, in the near future. The line will pass through a thickly-settled and prosperous agricultural country and presents no serious engineering difficulties. Galt and Guelph are large manufacturing towns. John Patterson is Pres., at Hamilton. Company states that capital for construction is on hand.

TORONTO, ONT.—An extension of two years has been granted to the Kingston, Gananoque & Perth Electric Ry. Co. in which to commence work on the road. The company's charter is eleven years old. J. C. Judd, of Kingston, Ont., it is reported, guarantees that ten miles of the road will be built within the two years.

LIGHT AND POWER PLANTS.

The names of parties awarded contracts are printed in capital letters.

DIXFIELD, ME.—The Dixfield Light & Power Co. has been incorporated with capital of $50,000. The officers are J. A. Decker, Pres.; J. B. Johnson, Treas.; G. L. Merrill, Clk.

AUGUSTA, ME.—It is reported that the Kennebec Light & Heat Co. will improve its plant at the east end of the Kennebec dam. A 675-HP. turbine, connected to a 500-KW. generator, will replace engines now in use. George F. West is Mgr.

MORRISVILLE, VT.—It is reported that a dam will be built across the Lamoille River, at Cady's Falls, for the purpose of supplying Morrisville with lighting power.

AMESBURY, MASS.—The Amesbury Electric Light, Heat & Power Co. has decided to make improvements to its plant to the extent of $30,000. It is reported that an addition will be made to the power-house, and new machinery will be installed. B. F. Sargent is Secy.; H. A. Sawyer is Supt.

PITTSFIELD, MASS.—It is the intention of the Pittsfield Electric Co. to expend $50,000 for new buildings and machinery. W. A. Whittlesey is Mgr.; Fred Treat is Ch. Engr., both of Pittsfield.

NORWALK, CONN.—It is reported that the Connecticut Ry. & Lighting Co. will put new arc lamps in the city of Norwalk; the style of lamp has not yet been decided upon. A. D. Wainwright is Supt.

BRIDGEPORT, CONN.—An addition to the electric light station of the United Illuminating Co. is under consideration. It is reported that it will be built of brick at a cost of about $8,000. Warren R. Briggs is Arch.; C. A. Paul is Mgr.

BUFFALO, N. Y.—The city has granted the BUFFALO GENERAL ELECTRIC CO. contract to furnish arc lamps for five years, commencing March 1, 1907. The lamps will be supplied at $56 a lamp instead of $75, yearly, as formerly.

NEW YORK, N. Y.—Bids are asked until May 3 by Francis J. Lantry, Comr. of Correction, for furnishing an underground system of feeders for supplying electric lights to buildings on Hart's Island.

FISHERS ISLAND, N. Y.—Bids are asked, in triplicate, until 3 p. m., June 1, by the Quartermaster, Fort H. G. Wright, for furnishing labor and material for installing a heating plant in the Administration Bldg. at the fort. (Advertised, Engineering News.)

NEW YORK, N. Y.—A 2-story power station will be built by the New York Edison Co., at 155 and 157 East 60th St. It is estimated that the building will cost about $60,000. Thomas E. Murray is Gen. Mgr.; J. D. Andrew is Ch. Engr.; C. S. Shephard is Pur. Agt., all of 55 Duane St., New York.

CHESTER, PA.—The Philadelphia Suburban Heat, Light & Power Co., it is reported, will construct lines all over the county. The company has been granted a franchise to furnish light to Darby, and will build a plant there.

PITTSBURG, PA.—Bids are asked until May 4 by A. H. F. Black, Boro. Clk., for one 200-KW. alternating current generator; one 300-HP. engine, and material and labor necessary for steam and exact lines.

NANTICOKE, PA.—It is reported that the Nanticoke Power Co., Witherspoon Bldg., Philadelphia, Pa., is having plans prepared for a large water-power plant on the Susquehanna River; estimated cost, $300,000.

WASHINGTON, D. C.—Bids are asked until May 8 by the Navy Department to furnish incandescent lamps, electrical supplies, bar steel, brass, motor, motor equipment for launch, etc., to several of the navy yards. H. T. B. Harris is Paymaster-General, U. S. N.

NORFOLK, VA.—It is reported that the PENN BRIDGE CO., of Beaver Falls, Pa., has contract to install a complete water and electrical system for the marine baracks, Navy Yard. The contract price is reported to be $11,500.

NORFOLK, VA.—The Bureau of Yards and Docks, Navy Dept., will soon advertise for bids for power plant apparatus at Norfolk Navy Yard, as follows: There shall be provided and installed two boiler feed pumps of an approved make, one pump to have sufficient capacity to supply 900-HP. of boilers and one pump to supply 1,500-HP. of boilers, at 200 lbs. pressure when running at a piston speed of not more than 50 ft. per min. Pumps shall be of the duplex outside packed plunger type and adapted to operate at 150 lbs. steam pressure. Also three injectors, one on each battery of boilers, to have a capacity of 4,500 gallons of water per hour with steam at 150 lbs. pressure. There shall also be furnished and installed an apparatus consisting of two units for heating and purifying the boiler feed water by means of exhaust steam from the plant auxiliaries. There shall be furnished and installed upon foundations furnished by the government, three turbo alternators, two to have a normal capacity of 1,000-KW. and the remaining one a normal capacity of 500 KW. The turbines shall be either of the multa stage or of the multiple expansion parallel flow type, designed to operate condensing and direct-connected to three-phase 60-cycle revolving field alternating current generators. Turbines shall normally operate with steam at a pressure of 150 lbs. and with 100° F. superheat and a vacuum of 28 ins. The alternating current generator of each turbine shall be of the rotating field type 60-cycle 3-phase, 2,300 volts between terminals and separately excited, together sets shall be two 500-KW. turbine driven, sets shall be two 500 KW. turbine driven, east set consisting of a steam turbine direct connected and a 50-KW. direct-current generator. There shall also be furnished and installed complete five 500-KW. motor generator sets, also a switchboard for the control of three alternators, five motor generator sets, two synchronous motors, two exciter sets, and 17 light and power circuits. There shall also be furnished and installed a complete condensing equipment, including syphon loop, circulating pumps, condensers, etc., also two motor-driven direct-connected cross-compound air compressors, each having a capacity of 3,000 cu. ft. of free air per minute compressed to 100 lbs. pressure, also a three-motor traveling crane having a maximum working capacity of 20,000 lbs.

HIGH POINT, N. C.—It is reported that the North Carolina Electric Co. has been incorporated to generate electricity for power, lighting and heating. Capital, $1,000,000.

LAKE PROVIDENCE, LA.—The charter of the Lake Providence Ice & Power Co. has been filed. The company will have a capital of $50,000, and the following officers : A. B. Sanders, Pres.; J. S. Guenard, Vice-Pres.; F. H. Sanders, Secy. and Treas.

IUKA, MISS.—The North Mississippi Traction Co. is applying for a charter to construct an electric railway and lighting plant. The intention is to build a dam across Bear Creek, about 14 miles from Iuka, costing about $30,000, to operate dynamos of about 4,000 HP.

JACKSON, MISS.—The Jackson Electric Light, Railway & Power Co. will erect a new steel power-house.

MEMPHIS, TENN.—It is reported that about $150,000 will be expended by the Memphis Consolidated Gas & Electric Co. for improvements to its plant. Richard Rees is Secy.; C. K. Steig is Ch. Engr.

NASHVILLE, TENN.—Contracts reported to have been awarded by the Board of Public Works are: BRAID ELECTRIC CO. and JOHN A. ROEBLING SONS CO., for furnishing copper and rubber covered wire; the SOUTHERN ELECTRIC CO., for furnishing 5,000 glass insulators.

ERIN, TENN.—The Houston County Oil & Gas Co. has been incorporated with a capital of $25,000. V. R. Harris is Pres.

ALEXANDRIA, IND.—A franchise has been granted to the Alexandria Gas Co.

ONTONAGON, MICH.—The village has awarded contract for an electric lighting plant to LANE & BODLEY, of Cincinnati, O.

KALAMAZOO, MICH.—The Kalamazoo Gas Co. is planning to erect a large addition to its gas plant.

COLDWATER, MICH.—An addition is being considered for the plant of the Coldwater Gas & Fuel Co. B. H. Caulkins is Pres.; George C. Turner is Secy. and Pur. Agt.

FLINT, MICH.—R. O. Hart and H. R. Loranger have applied to the City Council for a franchise for an electric light and power plant to cost about $100,000.

The Flint Light & Power Co. has purchased property four miles west of the city for the purpose of developing more water power.

BERRIEN SPRINGS, MICH.—A company is reported to have been formed, with a capital of $1,000,000, under the name of the Berrien Springs Power & Electric Co. It proposes to build a dam 21 ft. long on the St. Joseph River.

CALUMET, MICH.—The Calumet Gas Co. has secured the site for its new gas plant to furnish Laurium and vicinity.

GRAND RAPIDS, MICH.—It is reported that a dam will be built on the Manistee River, two miles from Sherman, which will develop about 50,000 HP. The work is under the direction of M. B. Wheeler and R. A. Opdyke, of Grand Rapids.

MENDOTA, ILL.—Construction of a large gas holder will soon be commenced at Mendota.

FOXLAKE, WIS.—Warren & Pettigrew Co. have let contract to install complete gas works to the IRON MOUNTAIN LIGHT & FUEL CO., of Iron Mountain, Mich.

RACINE, WIS.—JAMES CORSE, of Racine, has been awarded contract to build sub-power-house for the Chicago & Milwaukee Electric Power Co., to be located on the Joshua Pierce farm, about three miles from here. The cost is estimated at $25,000.

BEMIDJI, MINN.—It is reported that the Beltram Electric Light Co. will install one 800-KW. hydro-electric light plant during the latter part of the year, to cost about $50,000. A. A. Warfield, of Bemidji, is Secy.

TOPEKA, KAN.—It is reported that an electric light plant will be built in Topeka, under the direction of C. R. Maunsell. The enterprise will be backed by local capital.

WICHITA, KAN.—Plans are being made for the erection of a new plant for the Wichita Gas, Electric Light & Power Co. Henry C. Scott, St. Louis, Mo., is Mgr.; J. J. Walsh, Wichita, is Supt.

BELLEVILLE, KANS.—Bids are asked until May 15 by J. B. Peach, City Clk., for fornishing material and supplies for a complete electric light system. W. K. Palmer is Consult. Engr., 718 Dwight Bldg., Kansas City, Mo.

FORT MEADE, S. DAK.—Bids are asked, in triplicate, until 2 p. m., June 1, by Major George K. Hunter, Constr. Q. M., for furnishing electric light fixtures in six sets of officers' quarters, constructing secondary and service lines, furnishing transformers and watt meters. (Advertised, Engineering News.)

GREAT FALLS, MONT.—An ordinance has been passed by the City Council granting a franchise to Henry W. Mahany, and others, for a gas plant.

BALLINGER, TEX.—The Consumers' Light Co., capital $20,000, has been chartered here. Incorporators are: Tom Ward, J. O. Wilmeth and W. A. Nosman, all of Ballinger.

LADONIA, TEX.—The Ladonia Light & Water Co. has been incorporated with a capital of $30,000. Those interested are: Sam Prim and Will Haskins, of Ladonia; C. W. Alley, Sam J. Hogsett and August J. Gilliott, of Dallas.

ALTUS, OKLA.—The contract for constructing the water-works and electric light plant at this city has been awarded to the McQUATTERS PLUMBING & MACHINE CO., of Hillsboro, Texas. The cost is $28,000.

DENVER, COLO.—Henry Hanington, William H. Frazier and E. J. McLean have incorporated the Goodland Light & Power Co., with a capital of $50,006.

YREKA, CAL.—The Siskiyou Electric Power Co. and the Dewey Mining Co., it is reported, will extend electric facilities to the southern part of Siskiyou County, at a cost of about $75,000.

ESCONDIDO, CAL.—H. T. Duff, of Los Angeles, has been granted a franchise to erect an electric lighting plant; estimated cost, $25,000.

PHOENIX, ARIZ.—The National Oil & Gas Co., of Phoenix, Ariz., has been incorporated with a capital stock of $100,000.

HUNTINGTON, UTAH.—Bids are asked until June 1 by the Electric Light & Milling Co. for constructing an electric light plant. Wm. Howard is Pres. and Gen. Mgr.

THETFORD, QUE.—A by-law permitting the Shawinigan Water & Power Co. to distribute light and power in this municipality has recently been passed.

WELLAND, ONT.—It is stated that the Welland Electric Light Co. intends to install a distributing station at De Cew Falls, 9½ miles from Welland. C. J. Page is Mgr. and Ch. Electrician.

WEYBURN, SASK.—It is reported that the City Council has approved of plans for the installation of a municipal electric lighting system; estimated cost, $50,000. J. A. Wood is Mayor.

CALGARY, ALTA.—The amount of $30,000 is reported to have been voted by the City Council for the purpose of increasing the capacity of the municipal electric light plant. F. W. Thorold is City Engr.

LADNER, B. C.—The British Columbia Electric Ry. Co., it is reported, is planning to extend an electric light plant to Ladner.

GREENWOOD, B. C.—The Greenwood Electric Co. intends to erect a large power plant at Boundary Falls, for supplying the southern part of this province with light and power. It is reported that the plans are now before the City Council. F. C. Anderson, of Greenwood, Supt.

BRIDGES.

The names of parties awarded contracts are printed in capital letters.

SPRINGFIELD CENTER, N. Y.—The Town Board has voted to build a bridge across Hayden Creek.

TROY, N. Y.—Bids are asked until May 11 by the Board of Contract and Supply for constructing the substructure and superstructure of a one-plate girder span bridge, 66 ft. long, at Winter St. J. M. Riley is Clk.

NEW YORK, N. Y.—The Board of Estimate and Apportionment has authorized the issue of $2,000,000 in corporate stock to cover cost of constructing the Hendrick Hudson Memorial Bridge at Spuyten Duyvil. Total cost of the bridge is to be $3,000,000.

NEW YORK, N. Y.—Bids from six contractors for furnishing steel for the Manhattan bridge were deposited with J. W. Stevenson, Bridge Comr., April 30, but were not opened because of an injunction which will delay the opening and award of contract until May 7. The bidders were: The John Pierce Co., Monad Engineering Co., American Bridge Co., Ryan & Park, Milliken Construction Co. and King Bridge Co.

UTICA, N. Y.—It is planned to build a 45-ft. bridge over the hydraulic canal in Green St. Paul Schultz is City Engr.

CAMDEN, N. J.—The Camden Board of Freeholders has accepted the proposition of the Public Service Corporation to pay $20,000 towards the erection of a lift bridge over Cooper's Creek at Federal St. The bridge, which is to be built immediately, will cost $80,000. L. E. Farnham is City Engr.

SUNBURY, PA.—Contract for the construction of a railway bridge over the Susquehanna River has been awarded to the YORK BRIDGE CO., York, Pa., at $150,000.

CARBONDALE, PA.—It is reported that a bridge will be built across the Lackawanna River at Seventh St. Probable cost, $7,000.

WILKES-BARRE, PA.—Bids are asked until noon, May 25, by F. H. Gates, City Clk., for the erection of a steel and iron girder bridge. J. A. Hanlon is Chn., Special Bridge Com.

WASHINGTON, D. C.—Congress has passed an appropriation of $325,000 for the construction of a bridge over the Anacostia River.

JACKSONVILLE, FLA.—It is reported that the Jacksonville Terminal Co. will be compelled by the city to build a viaduct across its tracks in Myrtle Ave. Philip Prioleau is City Engr.

AKRON, O.—H. C. HARVEY has secured from the County Commissioners the contract to build a concrete bridge over Mud Run.

COLUMBUS, O.—The County Commissioners have awarded the contract for the construction of the substructure of the Reed Ave. viaduct to COOKE, GRANT & FITZ BROS., at $744,273. All the bids for the construction of the roadway, superstructure and approaches were rejected.

TOLEDO, O.—HUSTON & CLEVELAND, of Columbus, O., have the contract for building the Oak St. bridge, at $3,875.

SPRINGFIELD, O.—Bids are asked until May 17 by the Commissioners of Clark and Greene Counties for the construction of a bridge across Mad River; to be 189 ft. long and 18 ft. wide. A. K. Hahan is Audr. of Clark County.

JEFFERSON, O.—Bids are asked until May 17 by the Board of Councy Commissioners for steel bridge and abutments in Dorset Township. P. C. Remick is County Audr.

DAYTON, IND.—Plans are being drawn by the Pennsylvania R. R. Co. for a new double or triple track bridge across the Miami River at Dayton. The bridge is to be built of concrete, and will be used by the Pennsylvania, Big Four and C., H. & D. lines. Alex. C. Shand, Philadelphia, Pa., is Ch. Engr.

VALPARAISO, IND.—Bids are asked until May 7 by the County Commissioners for the construction of five iron bridges. S. P. Corboy is County Audr.

FLINT, MICH.—Plans are being prepared for the erection of a new bridge to replace the one at Third St. recently condemned. D. E. Newcombe is City Clk.

AURORA, ILL.—It is reported that the Chicago, Burlington & Quincy Ry. will build a bridge over Rob Roy Creek at once. W. L. Breckenridge, Chicago, Ill, is Ch. Engr.

MILWAUKEE, WIS.—The AMERICAN BRIDGE CO., 17th St. and St. Paul Ave., Milwaukee, has been awarded the contract for the erection of a bridge at Riverside Park, at $5,638. F. P. Schumacher is Secy. Bd .of Park Comrs.

BRECKENRIDGE, MINN.—Bids are asked until May 5 by the County Commissioners for the erection of a 60-ft. steel bridge. R. P. Clover is County Audr.

ST. PAUL, MINN.—Bids are asked until May 7 by George T. Reddington, Secy. Bd. Park Comrs., for the construction of a bridge across Island Canal at Phalen Park.

LINCOLN, NEB.—It is reported that C. G. SHEELEY, of Lincoln, has been awarded the contract for building all county bridges during the coming year.

CASTLEWOOD, S. DAK.—Bids are asked until May 8 by the County Commissioners for building six steel bridges across the Sioux River. Wm. Marshall is County Audr.

GARRETSON, S. DAK.—It has been decided to erect a steel bridge across the Sioux River, at a cost of $5,000.

GALVESTON, TEX.—It is reported that O. T. Holt and F. L. Dana, of Houston, and Chas. Clarke and others, of Galveston, have incorporated the Galveston Toll Bridge & Causeway Co., with a capital of $50,000. The object of the company is to build a toll bridge and causeway to connect the island of Galveston with the mainland.

SPOKANE, WASH.—It is reported that the Northern Pacific Ry. will build a truss bridge on C St. W. L. Darling, St. Paul, Minn., is Ch. Engr.

PORTLAND, ORE.—The Portland & Seattle R. R. Co. has been granted a franchise to build a drawbridge over the Willamette River three miles north of Portland. The bridge will be of the swinging draw type, with two openings 430 ft. wide. The total length will be 510 ft. C. M. Levey is Pres.

RIVERSIDE, CAL.—The Atchison, Topeka & Santa Fe Ry. Co. has plans prepared and will start work at once on a steel and cement bridge across Tequiscite Arroyo. W. B. Storey, Jr., Topeka, Kan., is Ch. Engr.

NAPA, CAL.—Bids are asked until May 15 by the County Commissioners for the construction of a masonry bridge across Suisun Creek.

BUILDINGS.

The names of parties awarded contracts are printed in capital letters.

BOSTON, MASS.—The following bids have been received for installing heating and ventilating equipment at the Normal and Latin School group, Back Bay Fens: Alex. Duncan Co., $55,635; Isaac Coffin Co., $54,666; Chas. H. Sanborn, $54,430; Huey Bros., $53,937; Walworth Const. & Supply Co., $53,877; Lynch & Woodward, $53,767; Pierce & Cox, $52,545; A. B. Franklin, $51,943; The Cleghorn Co., $49,747; Bradlee & Chapman Co., $48,895; James P. Dwyer, 27 Cambria St., $45,882. All bidders of Boston. Bids for electrical apparatus were: The United Electric & Apparatus Co., $34,769; Edw. C. Lewis, $24,488; Lord Electric Co., $23,645; Thos. W. Burn, $23,367; Clark & Mills Electric Co., $23,280; I. L. Watson, $21,561; M. D. Foster Electric Co., $20,360. All bidders of Boston.

WORCESTER, MASS.—Geo. H. Clemence, Arch., Walker Bldg., has prepared plans for a 5-story building to be erected for Brewer & Co., druggists, on Commercial St., at an estimated cost of $80,000.

WESTFIELD, MASS.—Contract for the construction of two buildings, 200 × 50 and 100 × 60 ft., for the Pope Manufacturing Co., has been awarded to the BERLIN BRIDGE CO., of Berlin, Conn.

BROCKTON, MASS.—The GEORGE HOWARD & SON CO. has been awarded the contract to erect a 3-story store building for the James Edgar Co., at about $120,000.

HARTFORD, CONN.—Plans are out for a 4-story apartment house to be erected by the Hartford Realty Co., at Asylum and Farmington Aves., at an estimated cost of $90,000. W. A. Sanford is Agt.

NAUGATUCK, CONN.—T. A. KENNEDY, 193 North Willow St., Waterbury, has been awarded the contract for a business building, 158 × 75 ft., to be built at Church and Maple Sts., for W. J. Neary. Estimated cost, $100,000. Griggs & Hunt, 51 Leavenworth St., Waterbury, are Archs.

NEW YORK, N. Y.—C. B. J. Snyder, Supt. of School Bldgs., has received bids as follows for the completion of general construction on public school 42, Washington and Wendover Aves., Bronx Borough: Thos. Cockerill & Son, 147 Columbus Ave., $124,000; R. J. F. Gerstle Co., 44th St. and First Ave., $145,883; P. Sullivan, 230 Grand St., $129,000; Geo. Hildebrand, 38 Park Row, $123,740; Tolmie & Kerr, 205 West 30th St., $129,000. Bids for sanitary work and gasfitting in public school 65, on Forsythe St., were: Jas. Fay's Son, 101 West 66th St., $23,760; Frank J. Fee, 411 West 32d St., $28,550; W. C. Ormond, 909 President St., Brooklyn, $25,630; C. Nally, 2398 Broadway, $30,987; J. Harley, 288 Flatbush Ave., Brooklyn, $27,972.

Mulliken & Moeller, Archs., 7 West 38th St., are preparing plans for an 11-story apartment house to be built at the northeast corner of Broadway and 101st St., for the One Hundred and Tenth St. Co., 7 East 42d St., at a cost of $700,000.

E. E. PAUL, 289 Fourth Ave., has received the contracts for two buildings from the Densmore & Compton Building Co., 307 Fifth Ave. Both are fireproof elevator apartments, one at 116th St. and Broadway, 75 × 100 ft., 14 stories, the other at 100 to 108 East 58th St., 100 × 100 ft., 12 stories. C. W. Buckham is the company's Arch.

A. Armezzani, 33 Van Houten St., Paterson, N. J., and Thos. Graham, 2269 Washington Ave., Bronx, Archs., have prepared plans for a church building to be erected at Pacific and Sackman Sts., Brooklyn. Building will be 250 × 100 ft., and will be erected by the Church of Our Lady of Loretto, which has let contract to FEDERICI, ARMEZZANI & CO., 33 Van Houten St., Paterson, N. J., at about $100,000. Rev. Vincent Sorrentine, 22 Powell St., Brooklyn, is pastor.

The Board of Estimate and Apportionment has appropriated $125,000 to be used by the Police Commissioner in making general repairs to police stations.

F. C. Zobel, Arch., 24 East 21st St., has plans prepared for a 7-story loft building, 42 × 100 ft., to be erected on West 26th St., at a cost of $95,000, for Max Solomon.

Plans have been filed for the following buildings: Lofts and stores, 2 East 15th St., 78 × 150 ft., 11 stories; Van Buren Estate, 21 West 14th St., owner; C. Volz, 160 Fifth Ave., Arch. Estimated cost, $325,000. Enlargement of Westminster Presbyterian Church, in West 23d St., at a cost of $175,000. Building will include a 10-story dormitory. B. L. Gilbert, 50 Broadway, is Arch.

Bids are asked until 11 a. m., May 7, by C. B. J. Snyder, Supt. School Bldgs., for the erection of two additional stories to public school 91, Brooklyn; for the general construction of a new school at 92d St. and Gelston Ave., Brooklyn; and for gymnasium apparatus for public school 147, Brooklyn.

Bids are asked until 11 a. m., May 10, by Francis J. Lantry, Comr., Dept. of Correction, for making alterations, including new plumbing, lighting, ventilating, flooring, etc., at the Fourth District Prison on East 57th St.

NIAGARA FALLS, N. Y.—A new freight house, 40 × 400 ft., is to be erected on Third St. by the New York Central & Hudson River R. R. Co., at a cost of $80,000. G. W. Kettredge, New York, is Ch. Engr.

CARMEL, N. Y.—Bids are asked until noon, May 10, by the Board of Supervisors, Brewster, N. Y., for alterations to court-house and jail. J. W. Towner is Clk. (Advertised, Engineering News.)

ALBANY, N. Y.—It is announced that architects will have an opportunity to compete in preparing plans for the proposed state education building to be built at a cost of $4,000,000. Prizes amounting to $20,000 will be offered by the state and the architect whose plans are accepted will receive a bonus of $10,000. The second and third prizes will be $7,000 and $3,000, respectively.

TRENTON, N. J.—Bids are asked until noon, May 8, by J. W. Morgan, Secy. of State, for the construction of a new wing to the State House. **(Advertised, Engineering News.)**

BETHLEHEM, PA.—HERBERT E. HAVENS & CO., Philadelphia, have been awarded the contract for erecting a $200,000 4-story brick and terra cotta office building, 135 × 160 ft., for the Bethlehem Steel Co. Cope & Stewardson, 320 Walnut, Philadelphia, are Archs.

PITTSBURG, PA.—P. W. FINN, of Altoona, has been awarded the contract for erecting a new building for the Emory Methodist Episcopal Church, at $175,000.

John H. McIlroy, 220 Emmerson St., and Dr. W. H. McKelvy, 420 Sixth Ave., are members of the committee which has been chosen to look after the erection of a $300,000 high school in Forbes St.

PHILADELPHIA, PA.—Bids are asked until May 8 by Carl P. Berger, Arch., 603 South Penn Square Bldg., for the erection of the William Penn Theater mentioned last week.

THOMAS M. SEEDS, Jr., has been awarded a contract for a $90,000 residence to be erected for S. P. Wetherill on the lot at 18th and Rittenhouse Sts., overlooking Rittenhouse Square. Frank Miles, Day & Bro., 925 Chestnut St., are Archs.

J. Horace Cook, Arch., Board of Education, has begun plans for a $300,000 commercial high school for girls, to be erected on 15th St., between Green and Mt. Vernon Sts. Three stories and basement, granite, 150 × 100 ft.

P. J. McDEVITT has a contract for a new edifice, to cost $75,000, for St. Ludwig's Catholic Church at 28th and Master Sts. F. C. Koenig is Arch.

It is reported that W. Copeland Furber, Arch., 421 Chestnut St., has completed plans and bids now being received for the erection of a 6-story addition to the Central Trust & Savings Co.'s building at Fourth and Market Sts. Probable cost, $150,000.

BALTIMORE, MD.—Sunderson Bros., Savings Bank Bldg., Washington, D. C., are preparing plans for an addition to the hospital of the University of Maryland. Steel, brick, and stone, 5 stories, 50 × 150 ft., to cost $175,000.

The Supervising Architect of the Treasury has awarded to HENRY SMITH & SONS CO. contract for additional plumbing in the Baltimore Custom-House at $2,902.65 and to F. D. MILLET, 6 East 23d St., New York, contract for painting and decorating the interior of the same building at $50,000.

Torney & Leach, Archs., 323 North Charles St., are preparing plans for a home for the St. Joseph House of Industry, to be built of brick, stone and steel, fireproof, three stories. Estimated cost, $150,000.

WASHINGTON, D. C.—Bids are asked until noon, May 17, by the District Commissioners, for building a public convenience station and installing plumbing work. Henry B. F. Macfarland is Comr. (Advertised, Engineering News.)

The Henry Casey Co., Chicago, Ill., was low bidder for installing mechanical equipment in the Municipal Building at $73,400 according to specifications and $58,900 omitting generators.

A. O. Bliss will erect a 4-sty brick residence at 1013 16th St., N. W., at a cost of $80,000. A. Goener, Bliss Bldg., is Arch.

Wood, Donn & Deeming, Archs., 808 17th St., N. W., are preparing plans for a bank and office building, 53 × 161 ft., to be erected for the Union Trust Co., 1414 F St. N. W., at a cost of $400,000.

CHARLESTON, W. VA.—Harding & Upman, 729 15th St., N. W., Washington, are preparing plans for a building for the Y. M. C. A., to cost $75,000.

CHARLESTON, S. C.—The following bids have been received for the erection of storehouse and storekeeper's office at the Charleston Navy Yard: Penn Bridge Co., 312 Bond Bldg., Washington, D. C., (items 1 and 13) $116,860, (2) $1,080, (3) $4,800, (4) $450, (5) $1,025, (6) $1,300, (7) $10,000, (8) $2,000, (9) $5,500, (10) $200, (12) $150; George Baker Long, 806 City National Bank Bldg., Lexington, Ky., (1) $120,163, (2) $828, (3) $3,343, (4) $1,178, (5) $3,000, (6) $450, (8) $300, (9) $6,000, (10) $1,990; Simons-Mayrant Co., 16 Broad St., Charleston, S. C., (1) $110,800, (2) $616,* (3) $4,686,* (4) $671,* (5) $1,850,* (6) $1,900,* (7) $6,879,* (8) $330,* (9) $4,000,* (10) $2,100,* (11) $225,* (12) $230, (13) no deduction. (* deduct.)

ATLANTA, GA.—Plans have been completed for a freight depot to be erected by the Louisville & Nashville Ry. Co. The building will be five stories high, 50 × 280 ft. Estimated cost, $300,000. H. W. Courtenay, Louisville, Ky., Ch. Engr.

PENSACOLA, FLA.—Bids are asked until May 21 by L. Hilton Green, Chmn. Bd. Bond Trus., for erecting a city hall. Probable cost, $75,000. Fredk. Ausfeld, 515 Thiesen Bldg., Pensacola, is Arch.

MONTGOMERY, ALA.—TOTHEROW & CO., of Montgomery, were awarded contract for building a new wing to the Capitol, at $51,129.

JACKSON, MISS.—Plans are being prepared by R. H. Hunt, Arch., Eighth and Broad Sts., Chattanooga, Tenn., for the construction of an annex to the State Deaf and Dumb Institution. The sum of $78,420 has been appropriated.

NEW ORLEANS, LA.—According to the "Item," C. C. Carnahan, of Chicago, one of the officers of the Krotz Manufacturing Co., has announced that his company will build a $100,000 sanitarium and 200 cottages at Latanier, a new town that is being built on the Atchafalaya River.

LOUISVILLE, KY.—ROMMEL BROS., 915 East Broadway, Louisville, have secured the contract for repairing the court-house at Louisville at about $93,000.

ELYRIA, OHIO.—Albert Kahn, Arch., 1117 Union Trust Bldg., Detroit, Mich., has awarded the general contract for a 4-story factory, 50 × 400 ft., for the Garford Co., to the TRUSSED CONCRETE STEEL CO., 401 Wayne County Savings Bank Bldg., Detroit, at about $300,000.

AVONDALE, OHIO.—Michael Heintz, of Cleveland, it is reported, has secured the contract to erect a school at $178,320.

DAYTON, OHIO.—It is reported that the American Engineering Co., of Indianapolis, is preparing plans for an $180,000 interurban station to be erected at Dayton.

CLEVELAND, OHIO.—Bids are asked until May 21 by Chas. Orr, Dir. of Schools, for furnishing material and erecting a school at Watterson and Detroit Sts.

TOLEDO, OHIO.—Contract for the construction of an addition to the department store of W. L. Milner & Co. has been awarded to Morgan Sheehy, at $75,000.

INDIANAPOLIS, IND.—The Central Union Telephone Co. will erect an 8-story office and exchange building at Meridian and New York Sts. L. E. Richardson is Pres.

MONTICELLO, IND.—Bids will soon be asked for the erection of a jail and sheriff's residence.

DETROIT, MICH.—G. W. Zanger, the furrier, has secured a site and intends erecting an 8-story building at Miami Ave. and John St., at a cost of about $175,000.

Contract for the erection of the Belle Isle Casino has been awarded to LOUIS SCHMIDT, at $85,700.

ROCKFORD, ILL.—Bids are asked until May 14 by H. C. Scovill, City Clk., for erecting the new West End School. Frank A. Carpenter is Arch.

CHICAGO, ILL.—The Chicago Great Western R. R. is to build a $250,000 addition to its freight house on Franklin Driveway, a continuation of Franklin St., between Harrison and Polk Sts. The addition will be 414 × 75 ft., and four stories high. It will be of concrete, brick and steel. A. Munster, St. Paul, Minn., is Ch. Engr.

Andrew Sandegren, Arch., 119 Monroe St., is preparing plans for an apartment building to be built on East End Ave., near 55th St., for Frank Gustafson, real estate dealer. It will be three stories, 100 × 110 ft., and cost about $65,000.

William H. Pruyn, Jr. & Co., Archs., 4217 Berkeley Ave., are taking figures on an apartment building to be built on the west side of Prairie Ave., near 61st St., for George Bass. Estimated cost, $90,000.

BULLEY & ANDREWS, 115 Dearborn St., have the contracts for foundation and carpenter work for woodworking shops to be built at Hawthorne for the Western Electric Co. It will be five stories, 255 × 375 ft., and cost $650,000.

William G. Krieg, Arch., 84 Washington St., is taking figures for a large apartment building at Central Park Ave. and Congress St.

The R. J. DAVIS CO., 1451 Railway Exchange Bldg., Jackson Boulevard and Michigan Ave., has the carpenter contract for a 12-story addition, 160 × 150 ft., to be built at the northeast corner of State and Washington Sts., to Marshall Field & Co.'s retail store. It will cost $600,000.

D. H. Perkins, Arch., Board of Education, Tribune Bldg., has completed plans for a school building to be erected on North California Ave., near Wabansia Ave. It will be three stories with exterior of pressed brick, stone and terra cotta, contain 26 rooms and an assembly hall, and cost $175,000.

The contract for the 16-story building to be erected at State and Monroe Sts., for Eugene S. Pike, has been awarded to J. M. EWEN & CO., at about $400,000.

MILWAUKEE, WIS.—Hood & Tulgren, 86 Michigan St., have prepared plans for a $100,000 apartment building at Astor and Juneau Sts.

RED WING, MINN.—A music hall, 84 × 100 ft., and a dormitory will be erected at the Lutheran Ladies' Seminary, at a cost of between $75,000 and $100,000.

DULUTH, MINN.—Bids are asked until May 4 by the Board of Education for ventilating and heating, plumbing and gas fitting for a public school in West Duluth. Austin Terryberry, Arch., 614 Palladio Bldg.; also for the school on East Sixth St., German & Lignell, Archs., 201 Torrey Bldg. Chas. A. Bronson is Clk.

ST. PAUL, MINN.—General contract for the erection of J. H. Allen's 6-story warehouse at Sixth and Rosabel Sts. has been awarded to the BRAYTON ENGINEERING CO., at about $150,000.

MINNEAPOLIS, MINN.—H. W. Jones, Arch., is preparing plans for a 6-story warehouse on Sixth St., between First and Second Aves. It will be 250 × 170 ft., and will cost $500,000.

WICHITA, KANS.—Contract for the construction of a 6-story business block for Wallenstein & Cohn has been awarded to the Wurster Construction Co., of St. Louis, at about $175,000.

ST. LOUIS, MO.—Contract for the erection of a 6-story warehouse on First and Second Sts., for the Dranneck Realty Co., has been awarded to ISAAC S. TAYLOR, at $180,000.

FORT WORTH, TEX.—The St. Louis & San Francisco R. R. Co. will make extensive yard improvements here as follows, according to the "Pink Sheet Bulletin": An eight-stall roundhouse of brick will be erected; a machine shop, 40 × 50 ft.; a ten-pocket coal chute; two cinder pits; foreman's combination office and store room, 40 × 100 ft., of brick; a brick oil house; a car repairers' house; a sand-dry house; a 70-ft. turntable, and one water tank. All necessary trackage will be constructed in connection with these improvements, and the estimated cost will be about $60,000.

DENVER, COLO.—Arthur Church, it is reported, has had plans prepared for a 6-story business building to be erected at 16th and Curtis Sts., estimated to cost $250,000.

BELLINGHAM, WASH.—Contracts for the erection of an office building at Elk and Holly Sts. for Alsop Bros. have been awarded as follows: Superstructure, BOOKER & CAMPBELL; concrete work, J. H. TRIEDE. Both are local firms.

SEATTLE, WASH.—J. A. Schack, Arch., Downs Block, is preparing plans for an 11-story office building to be erectrd at Second Ave. and Marion St. for August Mehlorn, at **a cost of $300,000.**

JOHN KAUFFMAN has been awarded the contract to build an 80 × 250 building for the House of the Good Shepherd at $75,000. Buckinger & Breitung, Wa[illegible] Bldg., are Archs.

PORTLAND, ORE.—The members of the Commercial Club, it is reported, are considering the erection of a $250,000 club-house at Fifth and Oak. F. W. Leadbetter is a member of the [illegible] having the matter in charge.

FRESNO, CAL.—Contract has been awarded by James Knox Taylor, Supv. Arch., Treas. Dept., to WM. H. MA[illegible] L, Pierre, S. D., for the construction of post-office building at Fresno, Cal., at $[illegible]

SAN FRANCISCO, CAL.—According to dispatches published in the daily papers the work of rebuilding San Francisco has already begun. Practically every property owner in the burned district has prepared plans for erecting an improved building on the site of the ruins.

A. P. McCreary, who owns the site of the old Western Union building, at the corner of Montgomery and Pine Sts., in which was located the offices of the Associated Press, is to begin immediately the construction of a 6-story building of the most modern style. Mr. McCreary, who also owns the southwest corner of Pine and Montgomery, says he will not erect structures higher than six stories.

The Pacific Mutual Life Insurance Co. has announced that although its offices were destroyed by fire it will immediately erect on its San Francisco site a large structure. Business will be conducted until further notice from Los Angeles.

James D. Phelan will be one of the first to rebuild on Market St. His plans are not complete, but call for a fine structure at Market and O'Farrell Sts.

A complete equipment for a $175,000 brick plant has been ordered of the ANDERSON FOUNDRY & MACHINE CO., Anderson, Ind., for Fred. B. Bach[illegible], of San Francisco, whose plant was destroyed by the earthquake.

PETROLEA, ONT.—Bids are asked until May 9 by H. Branston, Secy. [illegible] Pub. School Bd., for furnishing material and erecting a concrete, stone and brick school, including heating, ventilating, plumbing, etc. Wilson & Sons, Chatham, Ont., are Archs.

PROPOSED WORK

ENGINEERING NEWS desires to obtain **the earliest possible reliable information** concerning all projected work. We will appreciate any items **that you may send us.** Copies containing such information will be mailed to **you, upon request.**

Address, **WAINWRIGHT RANDALL**
Editor Construction News

WATER SUPPLY—IRRIGATION.

The names of parties awarded contracts are printed in capital letters.

LOWELL, MASS.—Long & Little, of Leominster, Mass., made the lowest bid for laying water pipe and constructing reservoir. Their bid was $13,395. George Bowers is City Engr.

AYER, MASS.—An application has been made by the Town of Ayer for authority to extend its water system into the Town of Howard. To do this, an issue of $125,000 of bonds will have to be made.

SPRINGFIELD, MASS.—We are officially advised that a bill allowing Springfield to take water from the Westfield Little River has been signed by Governor Curtis Guild, Jr. This bill provides for the furnishing of water to Agawam and West Springfield, and, later, to Westfield. A bond issue for $2,000,000 has been authorized to carry on this work which will be begun at once. Hazen & Whipple are Consult. Engrs.; Elbert E. Lochridge is Engr. Water Dept.

UTICA, N. Y.—The contract for building a 24-in. pipe line, 6,000 ft. long, for the Consolidated Water Co. has been let to HARRY W. ROBERTS, of Utica.

FREDONIA, N. Y.—EARNSHAW & BREED, of Fredonia, have contract to relay water main in Eagle St. and Lake View Ave.; 8, 6, and 4-in. pipe will be used. James P. Morrisey is City Engr.

CLAYVILLE, N. Y.—The Clayville Knitting Co. is planning to erect a reservoir among the hills above the company's property. A 12-in. main will connect the reservoir with the village, giving Clayville fire protection. The cost of the reservoir is estimated at $25,000.

NEW YORK, N. Y.—Bids are asked until 2 p. m., May 9, by William B. Ellison, Comr. Dept. of Water Supply, Gas and Electricity, for furnishing, repairing, etc., vault pans at Mount Kisco, Westchester County.

Bids are asked until 2 p. m., May 9, by William B. Ellison for furnishing and delivering 1,000 double-nozzle hydrants.

COOPERSTOWN, N. Y.—The Delaware & Hudson Co. proposes to build a water-tank with a daily capacity of 50,000 gallons, in Cooperstown. This tank, it is estimated, will cost about $4,000 and will be built for the purpose of supplying engines with water. James McMartin is Ch. Engr.; J. White Strong is Pur. Agt.

EAST ORANGE, N. J.—We are officially advised that the following bids were received on April 23, by the City Council, for furnishing and laying c.-i. mains, etc., as noted in issue of Engineering News of April 12: Antonio Costa, Orange, N. J., $41,211; Holmes & Coogan, 96 Garfield Ave., Jersey City, N. J.; $48,060; Donald Fus[illegible], Montclair, N. J., $45,277 (incomplete); Ludwig Batt, Orange, N. J., $34,785; D. Cu[illegible]zo, 150 Nassau St., New York, N. Y., $43,3

BERGEN, [illegible] Y.—The proposition to establish a wat [illegible] ystem in Bergen was carried at a recent e [illegible] on. The cost of installation is not to e [illegible] d $20,000. The Board of Trustees, co [illegible] ng of F. D. Wood, C. E. Edgerton, a [illegible] Myron E. Sickles, has the matter in h [illegible]

BLOOMSB [illegible], N. J.—It is reported that the Blooms [illegible] Water Co. has been incorporated wit [illegible] capital of $25,000. The incorporators [illegible] John A. Staats, John F. Auten, Har [illegible] Van Emburg, of Plainfield, and John [illegible] rt, of Bloomsbury.

ROXBUR [illegible] A.—The Eighth Ward Water Co. recent [illegible] eceived a charter to supply this town [illegible] water. A dam and a reservoir are to [illegible] built on the John Sell farm, for which [illegible] Fetterman is preparing plans. It is repor [illegible] that an artesion well will be added to th [illegible] ystem. W. S. Krise is Secy. of the water [illegible] pany.

LANCAS [illegible], PA.—It is reported that bids will be ask [illegible] during May for constructing a dam below [illegible] intake at the pumping station; estimated [illegible] $15,000. F. H. Shaw, 519 Woolworth [illegible] dg., is Engr. for Water and Sewer Com [illegible]

INDIANA [illegible] A.—We are officially informed that bids [illegible] received on April 26 by the Clymar W [illegible] Co., of Indiana, Pa., as follows, for [illegible] nstruction of 3,000,000-gallon distributing reservoir; quantities being: 14,-688 cu. yd [illegible] excavation; 2,984 cu. yds. puddle; 264,0 [illegible] brick, set in cement; 4,080 sq. ft. cement w [illegible]; 907 sq. yds. sodding; 11 cu. yds. concr [illegible] steps; laying 300 lin. ft. 10 and 12-in. c.-i. [illegible] e. The bidders were: W. N. Chisholm, Pittsburg, Pa., total, $24,500; A. M. Bowm [illegible] & Co., Pittsburg, Pa., $27,900; S. W. Sh [illegible] r & Bro., Indiana, $24,484; Thos. Arrigo, Charleroi, Pa., $17,309; W. B. Willard, Apollo, Pa., $15,153. Contract awarded to W. B. WILLARD. Contract for laying approximately 5,700 ft. 12-in. c.-i. water pipe and 3,700 ft. 8-in. pipe, Water Co. furnishing all materials on the ground, also awarded to W. B. WILLARD, at 35 cts, per lin. ft. Robert H. Wilson is Ch. Engr. of Clymer Water Co. Advertised in Engineering News on April 12.

BALTIMORE, MD.—Bids are asked until May 9 by E. Clay Timanus, Pres. Bd. of Awards, for furnishing and erecting one 100-HP. boiler to be placed in the Western pumping station, Druid Hill Park. Alfred M. Quick is Water Engr.; B. T. Fendall is City Engr.

WASHINGTON, D. C.—The following bids were opened April 28, at the office of the District Commissioners, Washington, for furnishing 200 tons of cast-iron pipe: United States Cast Iron Pipe & Foundry Co., Philadelphia, $33.60 per ton; American Cast Iron Pipe Co., Birmingham, Ala., $32.20 per ton; M. J. Drummond & Co., 182 Broadway, New York, $33.40 per ton; Lynchburg Foundry Co., Lynchburg, Va., $32.25 per ton; Central Foundry Co., 116 Nassau St., New York, $1.54¼ per foot.

RICHMOND, VA.—It is reported that the CROUSE CONSTRUCTION CO., of Perth Amboy, N. J., has contract for reinforced conduit, at $54,730. E. E. Davis is Secy. Water Comn.

THOMSON, GA.—The contract for water-works system has been let to a Savannah firm. Work will be begun at once on laying mains.

JACKSONVILLE, FLA.—It is reported that the U. S. CAST IRON PIPE & FOUNDRY CO. have secured contract for 55,600 ft. standard c.-i. coated water pipe, and for special castings. The following bids were made by the company: 6-in. pipe, $28.20; 8-in., $28.20; 10-in., $28; 12-in., $28; special castings, $58 per ton. Philip Prioleau is City Engr.; R. W. Ellis is Supt. W.-Wks.

BRISTOL, TENN.—We are officially informed that 29 miles of 20-in. pipe will be laid from a dam, having a 300-ft. elevation, to the city. There will be no reservoir at the point of intake, as stated in the issue of the Engineering News of April 5, but one, with a capacity of 3,000,000 gallons, will be constructed at the city. Contracts will not be let for two or three months. J. F. Hicks is Chn. Special Water Com.

SWEETWATER, TENN.—Sweetwater is now having streets surveyed with view to putting in water-works.

COVINGTON, KY.—New water mains will be laid from Eleventh to Brighton Sts. 28-in. pipe will be used, and the cost is estimated at $20,000. W. E. Gunn is City Engr.

CINCINNATI, OHIO.—The Board of Public Service has recommended sinking two wells, estimated cost, $8,000; installing pumping machinery, estimated cost, $14,000; and installing new apparatus and boiler at electric light station, estimated cost, $20,000. Charles N. Danenhower is Ch. Engr., Bd. Pub. Service.

FOSTORIA, OHIO.—Bids are asked until noon, May 14, by the Board of Public Service, J. H. Twining, Secy., for constructing water-works improvements, adjacent to the present pumping station. (Advertised, Engineering News.)

WYOMING (Cincinnati post-office), OHIO.—At a recent meeting of the Water-works Trustees of the village of Wyoming, all bids which had been received during the past month for remodeling the village reservoir, were rejected on the ground that the estimates were too high. The board will readvertise for bids.

CHICAGO, ILL.—Bids are asked until May 23 for furnishing material and labor, etc., for construction of 12-ft. water tunnel. See under Miscellaneous Contracts. (Advertised, Engineering News.)

ROCKFORD, ILL.—Bids are asked until May 2[illegible] by Frank J. Phinney, Supt. W.-Wks., for furnishing a horizontal compound condensing pumping engine with crank and fly-wheels, capacity, 10,000,000 gallons per day.

NORTH CHICAGO, ILL.—Bids are asked until noon, June 7, by the Bureau of Navigation, Navy Dept., Washington, D. C., for water-supply mains at the naval training station, Great Lakes, North Chicago.

PONTIAC, MICH.—It is reported that bids will be received during the coming summer for extending water mains.

KENOSHA, WIS.—Bids are asked until May 8, by R. H. Moth, Supt. W.-Wks., for erecting a steel water-tower of 250,000 gallons capacity, at Ridge and Pearl Sts.

GREEN BAY, WIS.—Plans are being prepared by D. W. Meade, of Chicago, for rebuilding the pumping station of the Green Bay Water Co. The estimated cost is $30,000. The company will lay a 12-in. c.-i. conduit across the East River, a 16-in. across the Fox River, and several mains in various streets.

ALBIA, IOWA.—We are officially informed that contract to build reservoir has been let to W. D. LOVELL, Minneapolis, Minn. It is estimated to cost $50,000. C. R. Allen, Ottumwa, is City Engr.; T. J. Baird is City Clk.

COMFRY, MINN.—The village of Comfry has decided to build a water-works system, to cost $5,000.

DULUTH, MINN.—Thomas F. McGilvray, City Engr., has begun making preparations for new auxiliary reservoir. This reservoir, it is said, will have a capacity of 5,000,000 gallons, and is estimated to cost $26,000.

WINFIELD, KAN.—Bids are asked until May 10, by J. O. Yeager, City Clk., for constructing water-works. Burns & McDonnell, 709 Dwight Bldg., Kansas City, Mo., are Engrs.

FORT PECK (Wolfpoint post-office), MONT.—Bids are asked until May 22 by C. F. Larrabee, Acting Comr. Indian Affairs, for improving water system at Fort Peck School. C. B. Lokmiller, Poplar, is Supt.

ALTUS, OKLA.—See under Light and Power.

LAPULPA, IND. T.—Contract to sink a well to a depth of 2,000 ft. has been let to J. W. HARPER.

FORT LOGAN, COLO.—We are officially advised that the following bids were received April 20 by Col. C. A. H. McCauley, Constructing Q.-M., for sinking a deep well at the Fort Logan target range; R. W. Caulder, Denver, Colo., $4.75 per ft.; Edwin B. Hendrie, Denver, $6; John B. Myers, Littleton, $5.

ARTESIA, N. MEX.—The town has voted $50,000 to build a water-works system.

CLEVELAND, WASH.—It is reported that the Cleveland Irrigation & Land Co. will build a reservoir to cost about $2,500. C. W. Forbes is Secy.

NEWBERG, ORE.—At a recent election, the proposition to issue $15,000 of bonds for construction of water system was carried. Work will be begun at once.

NAPA, CAL.—M. A. Nurse, State Engr., has located site for reservoir to be built for fire and domestic uses. The reservoir will have a capacity of about 150,000,000 gallons.

RIVERSIDE, CAL.—Bids were opened April 19, at the Indian Office, Washington, D. C., for furnishing and delivering all the necessary materials and labor required to construct and complete a water system at the school farm, and a water, irrigation and sewer system at the school grounds. Bids were as follows: W. D. Lovell, Minneapolis, Minn.: additional water system: 80-ft. steel tower, $3,300; 60-ft. steel tower, $3,000; irrigation system, including reservoir, $6,600 or $6,000, conditional on receiving both contracts; time, five months. Fred Peter, Riverside, Cal.: water system, $7,055; additional water system: gasoline engine, $1,478; 80-ft. tower, $1,984; 60-ft. tower, $1,625; time, September 1, 1906. Wilcox Rose Mercantile Co., Colton, Cal.: school grounds water system, $5,997; school farm: pumping plant, $1,465; water pipe, $368; 80-ft. tower, $1,495; 60-ft. tower, $1,148. No farm work without school work; deduction of $350 if awarded both contracts. Time not specified.

TRUXTON, ARIZ.—Bids are asked until May 17 by the Commissioners of Indian Affairs, Washington, D. C., for installing an irrigation plant.

HEBER, UTAH.—The Daniel Domestic & Power Water Co. has filed articles of incorporation. There will be a capital of $7,000, and the directors are J. D. Massey, John P. McGuire, Joseph C. McDonald, James X. McDonald and W. G. Plummer.

PROVO, UTAH.—An irrigation reservoir, to be controlled by the state, is proposed to be built near Loa.

TROY, IDAHO.—W. M. Duther, Mayor of Troy, writes that the town desires to grant one person a franchise for the construction of the complete water system to be installed. Preliminary surveys have been made.

ST. STEPHEN, N. B.—Bids are asked until May 10, by J. Vroom, Town Clk., for iron pipe required in constructing water system. F. A. Barbour, Tremont Bldg., Boston, is Engr.

FREDERICTON, N. B.—Bids are asked until May 16, by J. W. McCready, City Clk., for installing filtration plant with high lift pump. F. A. Barbour, Tremont Bldg., Boston, Mass., is Engr.

SEWERAGE.

The names of parties awarded contracts are printed in capital letters.

NEW YORK, N. Y.—Bids are asked until 3 p. m., May 10, by Moses Herrman, Pres. Park Board, for furnishing and delivering vitrified stoneware drain-pipe for Borough of Bronx.

SCHENECTADY, N. Y.—Plans are being made for new sewer extension, to be finished in the autumn. George Holtzman is Comr. Pub. Wks.

NEW YORK, N. Y.—Bids are asked until 11 a. m., May 16, by Bird S. Coler, Pres. Boro. of Brooklyn, for constructing sewers in East 14th, 80th, 41st Sts., 13th, 8th and Pitkin Aves., and Kenmore Place.

LONG BRANCH, N. J.—It is reported that the City has granted an extension of franchise to the Long Branch Sewer Co. The company intends to extend sewers into Fifth, Chelsea and Morris Aves. J. W. Seaman is City Engr.

HADDEN HEIGHTS, N. J.—The Borough Council will have plans made for a sewage and disposal plant. B. A. Lippincott is Mayor.

ALTOONA, PA.—Bids are asked until 7 p. m., May 9, by the Commissioners of Public Works, for building reinforced concrete storm sewer. Specifications on file at the office of Engineering News, 220 Broadway, New York. Harvey Linton is City Engr.

NEW YORK, N. Y.—Bids are asked until 11 a. m., May 15, by Louis F. Haffen, Pres. Boro. of Bronx, for sewer extension and construction on various streets.

LIGONIER, PA.—It is reported that an application has been filed with the State Department of Health for permission to construct a sewage system; estimated cost, $15,000. J. J. Janeway, of Greenburg, is Engr.

EDGEWORTH (Sewickley post-office), PA.—Bids are asked until May 5 by Flemin Nevin, Secy. Boro. Council, for about 14,000 lin. ft. of 12 to 36-in. sewers and appurtenances. Elliott & Baton, Keystone Bldg., Pittsburg, are Engrs.

ELDRED, PA.—Bids are asked until 7 p. m., May 15, by the Borough Clerk, for two trunk-line sewers and appurtenances. E. I. Marsh, J. S. Brown and A. Lemmex are Sewer Com.

WATERFORD, N. Y.—Bids are asked until 8 p. m., May 16, by the Board of Sewer Commissioners, for building sanitary sewer in Sewer District No. 2. Charles H. Shoemaker is Treas., Bd. Sewer Comrs. Thomas F. Grattan, 192 Mohawk St., Cohoes, N. Y., is Engr. (Advertised, Engineering News.)

LAURINBURG, N. C.—It is reported that contract will be let between June 1 and 15 for constructing water and sewage systems. J. M. Bandy, of Greensboro, N. C., is preparing the plans.

SPENCER, N. C.—The contract for construction of a complete system of sewage has been awarded to L. B. BRICKENSTINE. The work will cost, approximately, $18,000.

THOMASVILLE, GA.—Plans are being made for constructing a sewage system to cost about $35,000.

MONTGOMERY, ALA.—Bids are asked until May 21 by R. S. Williams, City Treas., for building additions to the sanitary sewer system of this city. The additions will be made in Highland Park and Ballinger Heights District, and on Water St.

GEORGETOWN, KY.—OSCAR DONALDSON & CO., of this city, has the contract for new sewers.

JEFFERSONVILLE, KY.—The Board of Public Works of Jeffersonville received the following bids for construction of the sewer from Tenth St., on Mechanic St., to the river: National Cement Constructnon Co., Louisville, $40,888; J. M. McLane, Newport, Ky., $21,357; W. O. Eweeney, Jeffersonville, $19,949 and Paul & Kirshner, Dayton, Ohio, $19,800.

FREEMONT, OHIO.—Bids were received for sewer work at Woodville, Ohio, April 25. FARRAGHER & RANDALL, of Lorain, Ohio, secured the contract, work to be completed August 1. The work was estimated at $9,317. Following were the bidders and amounts of bids: James Sheehan, Toledo, Ohio, $9,215; Geo. Kinney, Fremont, $10,238; William McMahon & Son, Toledo, $9,019; Benner & Mackey, Marion, Ind., $8,425; W. S. Pace, Newcomerstown, Ohio, $8,171; Farragher & Randall, Lorain, $8,035; Flaherty & Nicholson, Woodville, $8,371; J. M. Hennessey, Napoleon, Ohio, $8,844; F. B. Myers, Fremont, Ohio, $9,959; M. F. O'Sullivan, Toledo, Ohio, $9,895; Fred. Kleinman, Findlay, Ohio, $10,518; H. H. Mace, Van Wert, Ohio, $8,412; F. J. Richardson, Pt. Clinton, Ohio, $9,047; Fisher & Henry, Pemberville, Ohio, $11,576; Theodore W. Hill, Bellefontaine, Ohio, $9,897.

ELYRA, OHIO.—The council has voted to construct sewers on East River, Ohio, Depot, West and Huron Sts., and on Washington Ave. Bids will be asked for soon.

TOLEDO, OHIO.—On account of the unhealthy condition of the low ground near the Lake Shore & Michigan Southern Ry. tracks, between Upton Ave. and Hastings St., the Board of Health will have a sewer extended to that part of the city. Frank I. Consaul is Ch. Engr. Bd. Pub. Service.

YOUNGSTOWN, O.—Bids are asked until noon, May 7, by the Board of Public Service, for constructing sewer in Petrie St., from School to Plum St. G. T. Prosser is Clk. Bd. Pub. Service.

DAYTON, O.—The City Council has passed ordinances authorizing an appropriation of $1,258 for construction of storm water sewer on Gunckel Ave., from Erie to Edgar Aves., and $25,000 for same on Wayne Ave. Robert E. Kline is City Engr.; Thomas M. Pexton is Pres. Bd. Pub. Service.

JACKSON, O.—This city will submit the question of bonding for complete sewer system and sewage disposal to the voters this spring. Plans have been prepared for sewers and disposal plant by the Riggs & Sherman Co., Toledo, Ohio.

CADIZ, O.—The Riggs & Sherman Co., of Toledo, are preparing plans for a complete system of sewers, also for street paving.

MARION, IND.—Bids are asked until May 8, by the Board of Public Works, for constructing a sanitary sewer in Nebraska St. John O. Willson is Clk.

RICHMOND, IND.—The Board of Public Works has passed a resolution to construct a sewer in an alley, from Northwest St. to Whitewater River. Bids will be asked for shortly.

ADRIAN, MICH.—City will submit the question of issuing $75,000 of bonds for sewers to the voters on June 12. John Mawdsley, City Clk.; James Blair, City Engr.; Riggs & Sherman Co., Designing Engrs.

EVANSVILLE, IND.—Bids are asked by the Board of Public Works, for constructing sewer in Oakley and Franklin Sts. W. F. Wunderlick is City Clk.

ESCANABA, MICH.—Bids are asked until June 15, for constructing 4,678 ft. of 8-in. sewer. Estimated cost, $4,250. D. A. Brotherton is City Engr.

GREENVILLE, MICH.—This city will build main sewers during the coming season. Plans were prepared last year for this work by The Riggs & Sherman Co., Toledo, Ohio.

DETROIT, MICH.—It is reported that the Common Council has directed the Board of Public Works to advertise for bids for constructing six vitrified rock lateral sewers. J. J. Haarer is Comr.

BELDING, MICH.—A large amount of sewer construction will be done during the season. Plans have been prepared for this work, and are being superintended by The Riggs & Sherman Co., of Toledo, Ohio.

EDWARDSVILLE, ILL.—Bids are asked until May 8, by the Board of Local Improvements, for 14,000 lin. ft. of pipe sewers of from 12 to 24 ins. in diameter.

EDWARDSVILLE, ILL.—Bids will shortly be asked by the Board of Local Improvements for construction of sewers in two districts.

JACKSONVILLE, ILL.—Bids are asked until May 8, by the Board of Local Improvements, for furnishing materials and constructing sewers, approximately as follows: 2,850 ft. 15-in., 8,300 ft. 12-in., 7,500 ft. 10-in., 53 manholes, 31 catch-basins, Y's, etc. Estimated cost, $16,000. John L. Smetters is Engr.

ROCKFORD, ILL.—Bids are asked until 11 a. m., May 15, by the Board of Local Improvements, for constructing sewers in portions of Mulberry St. Edwin Main is City Engr. (Advertised, Engineering News.)

SHEBOYGAN, WIS.—Bids are asked until May 15, by the Board of Public Works, C. U. Boley, Chn., for constructing a sewer in Kentucky Ave.

KNOXVILLE, IOWA.—Bids are asked until May 8, by the Board of Supervisors of Marion County, for building an open drain in Drainage District No. 1. Walter Bane is Audr.

WATERLOO, IOWA.—W. A. EDGAR, of Cedar Rapids, Iowa, has been awarded the contract for building of the new sewers in West Waterloo.

DES MOINES, IOWA.—Plans are being prepared for extension to Clark St. of the Ingersoll St. sewer. J. W. Judd is City Engr.

NEW ULM, MINN.—The council has under consideration a proposition to lay about 1,600 ft. of 30-in. and 385 ft. of 12-in. sewers.

MOORHEAD, MINN.—It is reported that bids will be asked until May 15, for installing a brick and cement main outfall sewer. H. E. Roberts is City Clerk.

ATCHISON, KAN.—We are officially informed that plans will be started at once for sewers in Districts U and V, after the completion of which bids will be asked for the work.

SOUTH OMAHA, NEB.—It is reported that bids will be asked in a month or two for constructing a sewage system, estimated cost, $250,000. Herman Beal is City Engr.

ABERDEEN, S. DAK.—Work, costing between $50,000 and $60,000 will be done on the sewage disposal plant in this city. No bids have been asked for yet. D. C. Washburn is City Engr.

HILLSBORO, N. DAK.—Bids are asked until May 7, by Thomas Forde, City Audr., for constructing and relaying sewers.

BUTTE, MONT.—Plans are being prepared for two miles of sanitary sewers, by Frank Birkenbach, City Engr.

ST. LOUIS, MO.—Bids are asked until May 11, by the Board of Public Improvements for installing a sewer in Chippewa St., about 4,000 ft. long. H. R. Fardwell is Comr. of Sewers.

FORT WORTH, TEX.—Plans are being made by John W. Maxcy, of Houston, for a sewage system for the packeries at Fort Worth, estimated cost, $250,000.

FORT McINTOSH (Laredo Postoffice), TEX.—Bids, in triplicate, are asked until noon, May 12, for constructing outlet for sewage system at Fort McIntosh. Lieut.-Col. Robert R. Stevens is Constr, Q. M.

SPOKANE, WASH.—Resolution has been adopted by City Council, directing that plans be prepared for sewers in Cedar St., between Bridge Ave. and Broadway, and on College Ave., between Cedar and Madison Sts. Charles McIntyre is City Engr.

SACRAMENTO, CAL.—Plans and specifications for sewer in alleys M and N, from 26th to 28th Sts., presented by the City Surveyor, have been adopted.

BERKELEY, CAL.—Plans for a storm sewer to cost $120,000, on Virginia and Woolsey Sts., were approved by the Town Trustees on April 14. C. L. Huggins is City Engr.

STREETS AND ROADS.

The names of parties awarded contracts are printed in capital letters.

MERRIMACK, N. H.—Bids are asked until 5 p. m., May 14, for constructing a gravel road, to cost about $2,000. A. W. Dean is State Engr.

PROVIDENCE, R. I.—Contracts costing about $100,000 have been let by the State. The LANE CONSTRUCTION CORPORATION has contract for 7,000 ft. road in Burrilville, at $4,855; for 1,320 ft. in Gloucester, at $8,830. JOHN BRISTOW has contract for 10,560 ft. in Coventry and West Greenwich, at $9,309; for 13,200 ft. in Portsmouth, at $11,65•; for 13,200 ft. in Westerly and Charlestown, at $11,146. CHARLES A. JOHNSON has contract for 14,250 ft. in

Cranston and Warwick, at $12,527. HERBERT E. CUSHING has contract for 10,560 ft. in Little Crompton, at $9,170. KETTELL & MAGLONE have contract for 12,835 ft. in North Kingstown, at $10,814. JOSEPH McCORMICK has contract for 13,200 ft. on Smithfield Road, at $8,488.

THOMPSON, CONN.—Bids are asked until May 7 by the Board of Selectmen of Thompson for constructing gravel road. Oscar Foulettotte, of North Grosvenor Dale, is Chn.

BUFFALO, N. Y.—Bids are asked until 11.30 a. m., May 8, by the Department of Parks for repaving Fillmore Ave. George H. Selkirk is Secy.

Bids are asked until 11 a. m., May 9, by the Department of Public Works for repaving Elliott, Lewis and Medcalfe Sts., and St. John's and Olga Pls. F. A. Ward is Comr.

FORT WOOD (New York post-office), N. Y.—Bids are asked until May 28 by Capt. G. C. Burnell, Constr. Q. M., for constructing roads and walks.

ALBANY, N. Y.—Two new macadam roads will be built this year under the new highway act. One road will extend two miles, from Guilderland to Guilderland Center, and the other seven miles from Wolf Hill to New Scotland. It is estimated that these roads will cost $8,000 per mile.

NEW YORK, N. Y.—Bids were received on April 24 by Louis F. Haffen, Pres. Boro. Bronx, for grading, paving, etc., as follows: (a) grading, curbing, laying crosswalks, building approaches and placing fences in Sherman Ave., from 164th to 168th Sts.; (b) same, in Rockwood St., from Walton Ave. to concourse; (c) same, in West 162d St., from Ogden to Woodycrest Aves.; (d) same, in Chisholm St., from Stebbins to Intervale Aves.; (e) same, in Decatur Ave., from East 207th St. to Gun Hill Road; (f) same, in Timpson Pl., from 149th St. to Whitlock Ave.; (g) same, in East 181st St., from Tiebout to Jerome Aves.; (h) for paving with asphalt blocks on concrete foundation the roadway of Morris Ave., from 165th to 166th Sts.; (i) for paving with asphalt pavement on a concrete foundation the roadway of East 143d St., from Brook to St. Ann's Aves.; (j) for regulating, grading, setting curbstones and flagging sidewalks a space four ft. wide, laying sidewalks, building approaches and constructing steps in West 166th St., from Jerome to Lind Aves. Charles Schneider, 167th St. and Morris Ave.: (a) $27,417; D. W. Moran, 563 Burnside Ave., (a) $29,261, (e) $6,462, (f) $25,884; Uvalde Asphalt Paving Co., 1 Broadway, (a) $30,394, (b) $4,061, (g) $13,200, (i) $4,081; S. M. De Pasquale, Williamsbridge, N. Y., (a) $30,500, (c) $8,406; J. C. Voorhees, 182d St. and Morris Ave., (a) $30,671, (f) $30,274, (g) $14,168; Pat. Maher, 173d St. and Jerome Ave., (a) $30,807; F. Del Balso, 1481 Hoe Ave., (a) $31,075, (d) $2,029, (f) $25,840; George Bailey, 1199 Fulton Ave., (a) $31,840, (b) $4,467, (c) $3,531, (e) $6,698, (f) $29,122, (g) $12,473; George L. Brown, 614 West 146th St., (a) $32,302; C. W. Collins, Fordham Road and Morris Ave., (a) $33,087, (b) $5,000, (f) $29,690, (g) $14,964, (j) $17,447; Culgin-Pace Contracting Co., 787 Tremont Ave., (a) $33,291; P. J. Kane, 933 East 150th St., (a) $43,948, (c) $3,944, (f) $32,554, (g) $16,337; George M. Ward, (b) $4,066; Thomas T. Murray, 1821 Jerome Ave., (b) $4,401, (c) $4,248, (d) $2,822, (e) $6,862; A. S. Trant, 215 West 125th St., (c) $3,616; Clinton Beckwith, 49 West 27th St., (e) $6,956, (f) $25,671, (j) $18,754; B. C. Murray, (d) $2,429; S. Amana, 152d St. and Courtland Ave., (c) $4,137, (e) $8,043; J. J. McQuade, (c) $4,169; O'Leary & Lyons, 733 East 202d St., (e) $7,396; F. V. Smith Contracting Co., 67 West 68th St., (f) $29,379; F. E. North, 149th St. and Southern Boulevard, (f) $30,263; McCabe, Holland Co., 139th St. and Southern Boulevard, (f) $30,362; Hastings Pavement Co., 25 Broad St., (h) $5,428; Barber Asphalt Paving Co., 114 Liberty St., (h) $5,946, (i) $3,237; Asphalt Construction Co., (i) $3,365; Sicilian Asphalt Paving Co., (i) $6,184.

Bids are asked until 11 a. m., May 9, by Bird S. Coler, Pres. Boro. of Brooklyn, for grading, regulating and paving various streets in the Borough of Brooklyn.

Bids are asked until 3 p. m., May 10, by the Park Board, Boro. of Manhattan, for furnishing and delivering blue limestone screenings for the Harlem River driveway. Moses Herrman is Pres. Park Bd.

NEW YORK, N. Y.—Bids are asked until 11 p. m., May 15, by Louis F. Haffen, Pres. Boro. of Bronx, for grading, paving, and regulating on various streets.

CAPE MAY, N. J.—Bids are asked until noon, May 21, by the Board of Chosen Freeholders for rebuilding the Sea Isle City Turnpike from Ocean View to Sea Isle City. Anthony B. Smith is Dir.; R. Fendall Smith is Engr. Plans and specifications are on file at the office of Engineering News, 220 Broadway, New York. (Advertised, Engineering News.)

ATLANTIC CITY, N. J.—We are officially advised that prospects are bright for paving Atlantic Ave. with bitulithic pavement. Ordinance has passed its second reading in City Council. J. W. Hackney is City Engr.

INDIANA, PA.—We are officially advised that about one mile of road, 50 ft. wide, will be paved with brick, and that bids will be opened about July 1. Robert M. Mullen is Boro. Engr.

GROVE CITY, PA.—A. A. WOODS & CO., of New Castle, Pa., has a street paving contract in this city.

BRADFORD, PA.—We are officially advised that contracts for brick paving have been let to the following: paving on Thompson Ave., to R. C. RUTHREN, of Buffalo, N. Y.; Congress St., to THOS. FITZGERALD, of Fredonia, N. Y.; High St., to EUGENE PEAKE, Bradford, Pa. A. F. Brennan is City Engr.

WASHINGTON, D. C.—Bids are asked until 2 p. m., May 25, for supplying material and labor for street paving and curbing for the fiscal year ending June 30, 1907. (Advertised, Engineering News, May 3.)

CHARLESTOWN, S. C.—The city council has passed resolutions to lay sidewalks on both sides of King St., at an estimated cost of $30,000.

ATLANTA, GA.—Bids are asked until 10 a. m., May 7, by Capt. B. B. Buck, Constr. Q. M., Fort McPherson, for constructing about 1,200 ft. of 12-ft. roadway with gutters, etc.

BIRMINGHAM, ALA.—We are officially advised that contract for 10,000 sq. yds. vitrified brick paving has been let to the SOUTHERN PAVING & CONSTRUCTION CO., Chattanooga, Tenn.

NEW ORLEANS, LA.—Bids are asked until May 7 by Charles R. Kennedy, City Comptroller, for paving with asphalt Carondelet St., from Felicity to Josephine Sts. W. J. Hardee is City Engr.

CLINTON, TENN.—Bids are asked until May 19 by J. K. P. Wallace, Chn. County Pike Comn., for constructing about 13 miles of macadam road from Clinton to Briceville.

DANDRIDGE, TENN.—Bids are asked until May 24 by the Jefferson County Pike Commission for constructing road, to cost about $200,000.

JOHNSON CITY, TENN.—It is reported that bids will be asked for in about two months for brick paving to cost about $5,000.

LOUISVILLE, KY.—The Board of Public Works has awarded to the MEMPHIS ASPHALT CO. contracts for laying asphalt on a number of streets, the total value of the contracts being about $44,000. The price was $1.88 a sq. yd., with a guarantee for ten years. G. W. GOSNELL has contract to pave Eleventh St. with vitrified brick, and L. R. FLAG has contract to pave Howard St. with same material. J. B. Breed is City Engr.

OWENSBORO, KY.—H. W. EIGENMANN, of this city, has contract for macadamizing Hartford Road.

CADIZ, OHIO.—See under Sewers.

NEWPORT, OHIO.—The lowest bidder for construction of Columbia, Southgate, Eighth, Sixth, Seventh Sts. and James Alley was R. H. Flemming & Co.; Monmouth and Third Sts., R. L. Schoolfield; Fourth St., Barber Asphalt Paving Co.

CLEVELAND, OHIO.—Bids are asked until noon, May 9, by Board of Public Service, for grading, draining, paving with brick, etc., West 112th St. W. J. Springborn is Pres. Bd. Pub. Service; A. R. Callow is Secy.

DELTA, OHIO.—Work will be done during the coming season at Delta, Ohio. The Riggs & Sherman Co. have made plans for sewers, water-works and paving.

CINCINNATI, OHIO.—Bids are asked until May 19 by the Board of Public Service for material and grading, macadamizing, etc., a portion of Elsmere Ave., Norwood. George H. Stacey is Clk. J. A. Stewart, 813 Traction Bldg., is City Engr.

MANSFIELD, OHIO.—Bids are asked by Board of Public Service until May 19 noon for paving a number of streets. Bids will also be received on same date for 7,000 bbls. of Portland cement. This work will be advertised with approximate quantities, etc., in Engineering News in issue of May 10th.

SHELBYVILLE, IND.—It is reported that contract for paving 40,000 sq. yds. with bitulithic has been let to the HOOSIER CONSTRUCTION CO., of Indianapolis, Ind., at $1.98 a sq. yd.

Bids are asked until 7.30 p. m., May 15, for improvements to roadways and sidewalks on various streets and alleys. E. C. Newton is City Clk.

KOKOMO, IND.—CRAIL, DANIEL & WILSON have contract to pave Smith St., at $13,067; and a portion of West Taylor St., at $4,156. J. H. WATSON has contract to pave West Taylor St. from McCann to Leeds Sts., at $1,405.

RICHMOND, IND.—FRANK CRONIN has been awarded contract to lay a large amount of cement sidewalk in Richmond at 65 cts. per lin. ft.

The Board of Public Works is preparing to ask for bids for grading, etc., on 15th St., from New Hampshire St. to Whitewater River, and constructing sidewalk on each side.

GREENFIELD, IND.—Bids are asked by Oscar O. Beaver, City Clk., for improvements on a number of streets and alleys. Grading, paving and making concrete sidewalks is the work to be done.

BROOKVILLE, IND.—It is reported that MILLIAM EMSWELLER has secured contract for constructing a stone road in Posey Township, at $6,445.

BRAZIL, IND.—We are officially advised that C. M. KIRKPATRICK, of Greenfield, Ind., was awarded contract on April 19 for paving various streets. His figures were as follows: Forest Ave., $1.50 per sq. yd.; South Franklin, North Alabama and Depot Sts., $1.30. The material to be used is brick, on gravel foundation. J. A. Fletcher is City Engr.

BRAZIL, IND.—We are officially advised that C. M. KIRKPATRICK, of Greenfield, Ind., has been let contract for paving with brick as follows: Forest Ave., $1.50 per sq. yd.; South Franklin Ave., North Alabama and Depot Sts., $1.30 per sq. yd.

NORTH CHICAGO, ILL.—Bids are asked until noon, May 31, by the Bureau of Navigation, Navy Dept., Washington, D. C., for grading at the naval training station, Great Lakes, North Chicago. (Advertised, Engineering News.)

CHICAGO, ILL.—It is reported that the City Council has decided to pave about 100 miles of streets. M. J. Dougherty is Supt.

DECATUR, ILL.—Bids are asked until May 7 by the Commissioners of Adams County for constructing a macadam road. C. E. Lewton is County Audr.

EDWARDSVILLE, ILL.—Bids are asked until May 8 by the Board of Local Improvements for 915,200 sq. yds. of brick pavements and 9,300 lin. ft. of granitoid combination curb and guttering. Charles A. Sheppard is City Engr.

FREEPORT, ILL.—WILLIAM ASCHER, of Freeport, is reported to have contract for paving Pleasant St. with macadam, at $25,712, and Clark Ave., at $9,342.

CHAMPAIGN, ILL.—We are officially informed that the following bids were received on April 24 by the Board of Local Improvements for paving State St. with brick; MORRISEY & PORTER, Paris, Ill., $24,315 (contract awarded); A. D. Thompson, Peoria, Ill., $26,257; J. W. Stipes, Champaign, Ill., $24,877; Mollering Construction Co., Fort Wayne, Ind., $26,736. G. C. Fairclo is City Engr.

EXIRA, IOWA.—Bids are asked until May 14 by V. B. Hellyer, City Clk., for cement crossings and brick walks.

WINONA, MINN.—We are officially advised that contract was let to SILAS BRALEY, April 16, for macadamizing 14 blocks on Broadway for the following prices: Resetting curb already there, 7 cts.; furnishing new curb, 39 cts. per ft.; brick gutter 2 ft. wide, 40 cts. per ft.; retaining curb, 27 cts. per ft.; macadam, $1.09 per sq. yd.

TOPEKA, KANS.—Bids are asked until May 7 for paving various streets with brick; estimated cost, $65,000. James F. McCabe is City Engr.

OTTAWA, KANS.—Bids are asked until 5 p. m., May 9, by J. H. Bell, City Clk., for grading, etc., Third and Fourth Sts. We are officially advised that about 9,600 lin. ft. concrete curbing is required. John Halloren is Mayor.

LA CONNER, WASH.—Bids are asked until May 8 by Fred Blumberg, County Audr., clearing, grubbing and grading on four roads.

OGDEN, UTAH.—We are officially advised that the following bids were received by A. F. Parker, City Engr., for grading, curbing, etc.: J. P. O'Neill Construction Co., Ogden, Utah, $18,095; Thomas McHugh, Laramie, Wyo., $19,001.

MANUFACTURING PLANTS.

The names of parties awarded contracts are printed in capital letters.

PORTSMOUTH, N. H.—We are officially advised that the following bids have been received by the Bureau of Yards and Docks, Navy Department, Washington, D. C., for the erection of a boiler shop and installation of machinery at the Portsmouth Navy Yard: The Alliance Machine Co., Alliance, Ohio (item 3), $20,000; Niles-Bement-Pond Co., 111 Broadway, New York, (3) $17,000; Mead, Mason & Co., 73 Tremont St., Boston, Mass., (1) $167,787, (2) $20,919, (3) $21,912, (4) $3,174, (5) $3,272, (6) $12,073, (7) $3,382, (8) $39,548; C. M. Leach, Navy Yard, Boston, Mass., (8) $137,883, (10) $135,883; Woodbury & Leighton Co., 166 Devonshire St., Boston, Mass., (1) $168,000, (2) $17,000, (3) $17,500, (4) $3,700, (5) $4,000, (6) $8,400, (7) $5,900, (8) $133,000; Ambrose B. Stannard, 1133 Broadway, New York, (8) $127,000; The Whiton & Haynes Co., 35 Federal St., Boston, Mass., (1) $162,000, (2) $18,000, (3) $17,000, (4) $3,200, (5) $2,975, (6) $9,600, (7) $4,125, (8) $34,925, (9) no deduction, (10) no deduction; The Snare & Triest Co., 143 Liberty St., New York, (1) $179,900, (2) $19,000, (4) $4,000, (6) $6,000, (7) $7,000, (8) $143,900, (9) $500, (10) $137,800; The Marine Engine & Machine Co., 126 Liberty St., New York, (5) $3,000; The Otis Elevator Co., 17 Battery Pl., New York, (5) $2,975; O'Brien & Hoolihan Contracting Co., 1722 Park St., Syracuse, N. Y., (1) $164,043, (2) $17,000, (3) $17,000, (4) $2,800, (5) $2,800, (6) $7,200, (7) $4,893, (8) $132,150, (9) $500.

MANVILLE, R. I.—Dr. L. L. Mailhot, Cote Bldg., is at the head of a company just organized to establish a woolen mill here. Operations are to be begun at once.

NEW HAVEN, CONN.—It is reported that the Bigelow Co., manufacturers of boilers, will build additions and increase the capacity of its plant. F. L. Bigelow is Pres.

RENSSELAER (Post-office, Albany), N. Y.—The Harder Manufacturing Co., of Valatie, N. Y., it is reported, will build a finishing plant at this place. Building will be 160 × 60 ft., three-story, and machinery will be installed for the manufacture of underwear. W. A. Harder, Valatie, is Pres.

MATTEAWAN, N. Y.—The Ellrodt-Lynch Co. has been incorporated with a capital of $50,000 for the manufacture of silk goods. The directors are Christian Ellrodt, Jr., Charles Ellrodt, of Brooklyn, and J. H. Lynch, of Matteawan.

MINOTOTO, N. J.—Contracts are to be let at once by the Geo. Jones Glass Bottle Works for rebuilding its plant which was recently burned. Eight buildings, four 75 × 108 ft. and the others 75 × 150, 50 × 54, 50 × 24 and 40 × 80 ft. will be erected and machinery installed.

PERTH AMBOY, N. J.—The Acme Underwear Co. will remodel its plant and install forty new machines at once.

WEST PITTSTON, PA.—The Stirling Silk Co. has invited bids for the erection of a silk mill, 3 stories, 70 × 160 ft. and for the installation of machinery.

A new silk factory is to be built and equipped by the Valentine & Bently Silk Mills at a cost of $15,000.

WILKES-BARRE, PA.—STEEL & HOPPER, of Paterson, N. J., have received the contract for erecting a cold storage warehouse and bottling plant for the Stegmaier Brewing Co.

PHILADELPHIA, PA.—The WILLIAM STEELE & SONS CO., have been awarded the contract for a 3-story reinforced concrete glue factory, 80 × 225 ft., for the A. Berg Co., on Ontario St., near the Delaware River. The cost will be $45,000. Andrew J. Sauer, 1208 Chestnut St., is Arch.

PITTSBURG, PA.—It is reported that the Pittsburg Gage & Supply Co., brass and iron founders and machinists, has secured a site and will erect a 6-story concrete and brick factory building. Plans are being prepared. W. L. Rodgers is Pres.

WILMINGTON, DEL.—Th[illegible] X. Laundry Co., 513 Shipley St., wi[illegible]ld a 3-story addition to its laundry bui[illegible] and install new machinery.

BALTIMORE, MD.—The [illegible]on Concrete Construction Co. has been i[illegible]porated with a capital of $10,000 to man[illegible]ure concrete blocks by Nat. T. Frame, 91[illegible]orth Arlington Ave., and others.

GEO. BUNNECKE & SO[illegible]5 St. Paul St., have been awarded the [illegible]act for the construction of an additio[illegible] the shirt factory of E. Rosenfield & [illegible]2-38 South Paca St. Louis Levi, Am[illegible] Bldg., is Arch.

Ballinger & Perrot, Archs[illegible]) Chestnut St., Philadelphia, have pre[illegible] plans for a reinforced concrete factory[illegible]ding, 275 × 80 ft., three stories, for the [illegible]nwald Co., lithographers and printers, [illegible]more and Eutaw Sts.

ROANOKE, VA.—The Vir[illegible] Bridge & Iron Co., it is reported, wi[illegible]t a fire-proof building to replace the [illegible] shop recently destroyed by fire. C[illegible] Michael is Pres.

MARION, VA.—Plans hav[illegible] prepared for the erection of an engin[illegible]n and machine shop for the Marion M[illegible]acturing & Milling Co. Building will b[illegible] × 120 ft. An addition to the main factor[illegible]ilding and the installation of much new [illegible]chinery is planned for the near future.

ROCKINGHAM, N. C.—It is [illegible]orted that the Roberdal Manufacturing [illegible] will erect a 74 × 105 ft. addition to its [illegible]

BESSEMER, N. C.—The Cr[illegible]nt Cotton Mills Co. has been incorporat[illegible]th a capital of $150,000 by C. W. Davis [illegible]d others.

PICKENS, N. C.—The Picke[illegible]otton Mill is being organized by W. M. H[illegible]good, Pres. of the Glenwood Mill, Easley, [illegible] C. It is planned to erect a manufactur[illegible] plant at a cost of $250,000.

GREENVILLE, S. C.—Luther M. McBee, W. E. Beattie, J. W. Roberts and T. Q. Donaldson have incorporated [illegible]e Vardry Cotton Mills with a capital of $[illegible]. Fine yarns will be manufactured.

ATHENS, GA.—It is reported that the Mallison Braided Cord Co. will [illegible]ld an additional mill, two stories, 75 × 188 ft. and install 5,000 spindles for the manufacture of cotton yarn.

DAHLONEGA, GA.—M. J. Williams, Mgr., states that the Dahlonega Handle Co. will erect a building 40 × 80 ft. and equipment for making 60 dozen handles per day.

BAINBRIDGE, GA.—A concrete construction company which is being organized here by H. H. Cheathem will install concrete mixers, hollow block machines and rock crushers, for which it is now in the market.

NORTH BIRMINGHAM, ALA.—It is reported that Thomas Pervis has secured a site and will erect a plant for the manufacture of nickle-plated sadirons.

NEW ORLEANS, LA.—It is reported that the American Printing Co. is arranging for the establishment of a printing plant to cost about $500,000.

SHREVEPORT, LA.—The Signor-Burton Tie Co. is planning the erection of a creosoting and manufacturing plant at Shreveport, to cost about $100,000. Geo. W. Signor, of Shreveport, is Pres.

JACKSON, TENN.—It is reported that the Jackson Woolen Mills Co. will erect a five-story building, 90 × 100 ft., at a probable cost of $35,000. B. P. Cantrell, of Jackson, is interested.

KNOXVILLE, TENN.—Plans have been prepared for the factory building of the Loudon Hosiery Mills. The plant will be erected by a company recently organized with Charles H. Bacon, secretary and R. H. Bell, H. M. Goins and others large stockholders. The building and equipment will cost $30,000.

GRAND RAPIDS, MICH.—According to press reports the Excelsior Wrapper Co., of Sheboygan, Wis., has plans prepared for the erection of a plant for making excelsior wrappers for furniture. Estimated cost is $50,000. W. E. Tallmadge is Mgr. of Sheboygan plant.

EAST MOLINE, ILL.—The Union Malleable Iron Co. has let contracts for additions to its factory and annealing house, a new core building, three 15-ton furnaces and 25-ton annealing ovens. It is expected that the power plant will be increased by the installation of two 150-HP. water-tube boilers and a 300-KW. direct-connected generator. T. H. Gould is Pres. and Mgr.

CHICAGO, ILL.—Contracts have not yet been let for the installation of machinery in the new building which is being erected for the Gardiner Metal Co., at 454 West Lake St. James Gardiner is Mgr.

AMARILLO, TEX.—The Fort Worth & Denver City Railway has secured site and will erect roundhouse, repair shop, coal chutes, etc., at an estimated cost of $60,000. J. M. Mann, Childress, Tex., is Genl. Foreman Bridges and Bldgs.

ST. CATHARINES, ONT.—We are officially informed that the Jencks Machine Co., St. Catherines, Ont., is considering the erection of steel and concrete shop buildings. The buildings will be 100 × 300 ft. with columns 15 ft. high, steel roof trusses and galvanized iron roofs.

MISCELLANEOUS CONTRACTS.

The names of parties awarded contracts are printed in capital letters.

DISTRIBUTING SYSTEM.—Mitchell, Neb.—Bids are asked until 2 p. m., June 15, by the U. S. Reclamation Service, Mitchell, Neb., for constructing about 135 miles of distributing system for irrigating lands in North Platte Valley and western Nebraska, involving about 720,000 cu. yds. of earth work and 11,000 cu. yds. of rock work. (Advertised, Engineering News.)

DAM.—Hermiston, Ore.—Bids are asked until 3 p. m., June 28, by the Supervising Engineer, U. S. Reclamation Service, Portland,

READERS' WANTS

FOR THOSE IN THE MARKET

The readers of ENGINEERING NEWS are constantly in the market for great quantities of machinery, tools and general supplies. While our thousand advertisers are usually able to furnish the material desired, yet there are many things wanted by our readers that are not advertised, although connected with engineering and contracting directly or indirectly. This department (R-W) is for this class of inquiries, and we urge our readers to keep us informed. Enclose five cents in stamps and we write to a number of leading manufacturers without further cost. When writing to our advertisers, who are the leaders in their respective lines, mention Engineering News. Have you a copy of our Buyers' Guide? Engineering News Can Help Buyers.

CEMENT BLOCK MACHINE.—Essex Junction, Vt.—Wm. S. Teachout, Essex Junction, Vt., informs us that he is in the market for a cement block machine.

SMALL STEAM ENGINES.—Bellaire, O.—We are informed that C. M. Hutchinson, Bellaire, O., is in the market for a small steam engine of ¼ to ½ HP.

REINFORCED CONCRETE CONSTRUCTION.—St. Catharine, Ont.—The Jencks Machine Co., St. Catharine, Ont., informs us that it desires information relating to steel concrete factory buildings.

SECOND-HAND DREDGE.—Long Island City, N. Y.—M. A. Metzner, 337 Vernon Ave., Long Island City, N. Y., writes us that he is in the market for a small second-hand dredge, except the engine.

SAND BRICK MACHINERY.—New York, N. Y.—George Finck, of Finck, Embree & Cobb, 135 Broadway, New York, informs us that he desires to communicate with firms making sand brick machines.

ELECTRIC BLUE PRINT MACHINES.—Utica, N. Y.—We are officially informed that M. J. French, Engr., Utica & Mohawk Valley Railway Co., Utica, N. Y., is in the market for electric blue printing machines.

BITTERN WATER.—Wichita, Kan.—We are in receipt of a letter from Wm. C. Edwards, Jr., of the W. C. Edwards & Sons Co., of Wichita, Kan., in which he states he is desirous of communicating with parties interested in a seaside salt plant or parties handling the byproducts. He desires to secure prices on large quantities of bittern water.

CUPOLA, BLOWER, PUNCHING PRESS, ETC.—Mansfield, O.—We are informed that the Phoenix Electric Co., of Mansfield, O., is in the market for a second-hand punching press for blanking out armature discs and also a second-hand 2 to 5-ton cupola and blower.

MACHINERY.—Dacca, Bengal, India.—We are in receipt of a letter from Satilva Mohun Das & Sons (Commission Agents and Importers), Dacca, Bengal, India, in which they state they are in the market for soap-making, candle-making, paper-making, towel-making, envelope and paper-making, tin box and cigarette-making machinery.

EXPANDED METAL, METAL LATH, WIND MILLS, CONCRETE PILING, REINFORCED CONCRETE, HOISTING ENGINES, DERRICKS, ETC.—Lima, Peru.—We are in receipt of a letter from R. A. Gray, Correa Casilla, 828 Lima, Peru, in which he states that he desires catalogues in English and Spanish of the best concerns making expanded metal, metal lath, wind mills, concrete piling, reinforced concrete, hoisting engines, derricks, etc.

SHIELDS.—Los Angeles, Cal.—We are in receipt of a letter from Stansbury & Powell, outfall sewer contractors, Los Angeles, Cal., in which they state that they desire information regarding shields, such as are used in driving wet tunnels. There are two strata of water, one above and one below a stratum of yellow clay about four feet thick. The other composition is sand and gravel. They desire information as to the initial cost and where some answering the above description can be seen.

Ore., for build[illegible] the Cold Springs dam. This work inclu[illegible] about 694,000 cu. yds. of rock and gravel [illegible]xcavation, and about 3,100 cu. yds. of co[illegible]e and 35,000 cu. yds. of riprap and roc[illegible]ll. (Advertised, Engineering News.)

FIRE HOS[illegible]lbany, N. Y.—Bids are asked until [illegible] m., May 7, by Isidore Wachsman, C[illegible] Bd. Contract and Supply, for furnishing [illegible]00 ft. of fire hose, for Bureau of Fi[illegible]

DITCH.—Fo[illegible]dge, Iowa.—Bids are asked until May 10 [illegible] the office of H. S. Holm, County Audr[illegible]r constructing a ditch in Drainage Dist[illegible] No. 7, containing approximately 67,000 [illegible] yds. excavation.

STEEL TU[illegible]Baltimore, Md.—The SKINNER SHIPB[illegible]DING & DRY DOCK CO., of Baltimore, [illegible] been awarded the contract for a steel tu[illegible] by the Harbor Board. Consideration is $[illegible]000, and conveyance of old tug Baltimor[illegible] to the contractor. N. H. Hutton is H[illegible]bor Engr.

STEEL, I[illegible]N CASTINGS, ETC.—Springfield, Mass.—[illegible] will be received until May 17 by Col. F[illegible]k H. Phipps, Comdg. Springfield Armory, [illegible]r furnishing steel, iron castings, lumber, etc., during year ending June 30, 1907.

JETTIES, [illegible]TC.—Collinwood, O.—Bids are reported ask[illegible] until May 10 by the Board Public Servi[illegible], A. R. Callow, Secy., Cleveland, for the various improvements, consisting of grading, building jetties and changing the channel of the creek at the outlet of the main intercepting sewer.

DITCH.—Muscatine, Iowa.—Bids are asked until June 4 (readvertisement), at the office of A. S. Lawrence, County Audr., for constructing a ditch in Drainage Div. No. 2. Bids may be submitted as a whole or separately on Sections 1 to 9, inclusive. There will be in all, 63,559 cu. yds.

TUNNELS.—Chicago, Ill.—John E. Erickson, City Engr., is reported to have completed plans for lowering the La Salle and Washington Sts. tunnels. The plans contemplate the temporary abandonment of the tunnels, the construction of another roof 26 ft. below water level, and the knocking-off of the present tops.

DRAINAGE.—Bergenfield, N. J.—Bids were received on April 28, for draining the lowlands lying in the Boroughs of Bergenfield and Dumont, Bergen County, as advertised in Engineering News, as follows: I. T. Brown, $11,639; F. E. Spinner, $10,950; L. B. Harrison, $10,812; B. J. Whittaker, $8,463. Walter Christie, Secy.

SUBWAYS.—Syracuse, N. Y.—The Central New York Telephone & Telegraph Co. has awarded the contract for building about 16 miles of subways here this year to the WARNER-QUINLAN CO., and the contract for building about four miles of subways to R. F. LEWIS, both of this city. The subways will cost about $200,000.

FILLING.—Jacksonville, Fla.—The Board of Public Works is reported to have rejected the bid received on April 2 for filling in the low lands owned by the city lying along the banks of Hogan's Creek. The work comprises 100,000 cu. yds. of filling. The only bid received was from Foster & Long, at 48.75 cts. per cu. yd. Noted in Engineering News on March 29.

GRADING.—Charleston, S. C.—Contract has been awarded by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., to J. O. H. WHITSELL, Charleston, S. C., for filling and grading at the Navy Yard, Charleston, S. C., at 45 cts. per cu. yd. Time of completion, 4 months. Bids were received on April 28.

BENTON PROJECT.—Upon recommendations of the engineers in the field, the name of Benton Project has been substituted for the so-called Ledbetter Project, Washington. The advantages of such a change are apparent. Benton is the name of the newly created county, and is expressive of the location of the project, besides being shorter and not constantly misspelled.

PORTLAND CEMENT.—Wheeling, W. Va.—One bid for furnishing and delivering American Portland cement for Lock No. 4, Little Kanawha River, was opened at Wheeling, W. Va., on April 28, by Major Geo. A. Zinn, Corps of Engineers, U. S. A.: that of the Atlas Portland Cement Co., New York, as follows: 3,000 bbls. (in paper), $1.58 per bbl.; 1,200 bbls. (in wood), $1.78 per bbl.

STEEL BARS.—Glendive, Mont.—The bid of the Crucible Steel Co. of America, Pittsburg, Pa., for furnishing steel bars for use in the construction of structures of the main canal and laterals, Yellowstone project, N. Dak. and Mont., has been rejected by the Secretary of the Interior. The rejection is due to the fact that no bids were received for the work in which these steel bars will be used.

RUBBLE STONE.—Newburyport, Mass.—The following are reported to be the bids opened on April 16 by Col. W. S. Stanton, Corps Engrs., U. S. A., Boston, for rubble stone in north jetty at Newburyport Harbor: Breakwater Construction & Engineering Co., New York, N. Y., 96 cts.; John Cashman, Quincy, $1.26; Jos. J. Callahan, Atlanta, $1.29, and Rockport Granite Co., Pigeon Hill Granite Co., Rockport, $1.34.

WATER TUNNEL.—Chicago, Ill.—Bids are asked until 11 a. m., May 23, by William L. O'Connell, Acting Comr., Pub. Wks., for furnishing all tools, labor, machinery, and appliances necessary to constructa 12-ft. water tunnel about 16,640 ft. long and certain 9-ft. tunnels aggregating about 2,100 ft. in length, including certain shafts, said tunnel being known as Section No. 2, southwest land tunnel. (Advertised, Engineering News.)

CANAL WORK.—Boise, Idaho.—The Secretary of the Interior has awarded the following contracts for the construction of schedules 1, 2 and 3, main canal, Payette-Boise, project, Idaho: Sechedule No. 1, for a portion of the main south side canal, involving the excavation of 302,000 cu. yds. of material and 3,500 cu. yds. of riprap, was awarded to WILLIAM H. THOMPSON, of Boise, Idaho, at $93,325. Schedules 2 and 3, for the balance of the main south side canal, were awarded to PAGE & BRINTON, of Salt Lake City, Utah, whose bids were $69,750 and $66,150 respectively. The Page & Brinton contracts call for the excavation of 583,000 cu. yds. of material.

CANAL WORK.—Glendive, Mont.—The Secretary of the Interior has suspended the contract of December 28, 1905, with the Widell-Finley Co., and has caused a new contract to be entered into with JOHN A. NELSON, Minneapolis, Minn., for the completion of Division 8, and Laterals F, O and P, main canal and lateral system, of the Lower Yellowstone project, North Dakota and Montana. The contract calls for the completion of the work, Sept. 1, 1907, and involves 179,500 cubic yards of excavation and 7,000 cu. yds. of overhaul.

The Secretary of the Interior, on April 27, executed a contract and approved the bond of JOHN A. NELSON, Minneapolis, Minn., for the construction and completion of Divisions 5, 6, 7 and 9, and several laterals of main canal and lateral system, Lower Yellowstone project, N. Dak. and Mont. This contract involves the excavation of 1,370,330 cu. yds. of earth and 227,000 cu. yds. of overhaul. The amount of Mr. Nelson's bid was $254,770.

DRAINAGE.—Forest City, Iowa.—Bids are asked until May 10 by the Joint Board Supervisors of the Counties of Winnebago and Worth, at the court-house, Forest City, for the following work in Drainage District No. 2, Winnebago County, and Drainage District No. 3, Worth County, comprising open ditch work in Sections 6, 7, 9, 11, 12, 13, 14 and 16, consisting of 59,100 lin. ft. open ditch, estimated at 116,400 cu. yds.; also 3,050 lin. ft. 8-in., 3,500 lin. ft. 10-in., 7,600 lin. ft. 12-in. and 3,800 lin. ft. 15-in. tile drain in Sections 8, 10, and 15; also 2 dykes, one 1,440 ft. long and the other 740 ft. long, in Sections 17 and 18 respectively. L. A. Hauge, Audr. Winnebago County, at Forest City.

STEEL SHEDS.—New Orleans, La.—Bids will be received until May 8 (readvertisement) for covering and enclosing the steel sheds to be erected on Toulouse, Clouet, Eighth, Mandeville Sts. and Picayune Tier, as follows: Furnishing and delivering sheathing, nailing strips and planking. A. C. Bell, Engr., 506 Hibernia Bank Bldg.

U. S. POSSESSIONS AND CUBA.

The names of parties awarded contracts are printed in capital letters.

MISCELLANEOUS SUPPLIES.—Panama.—Bids are asked until 10.30 a. m., May 21, by D. W. Ross, Gen. Pur. Agt., Isthmian Canal Comn., Washington, D. C., for miscellaneous supplies. (Advertised, Engineering News.)

PIPE LINE, ETC.—Mayari, Cuba.—The Nipe Bay Co., Cuban Division, will lay several miles of water-pipe line in connection with erection of large sugar mill at Punta de Tobasco, Nipe Bay, in province of Santiago de Cuba. Company also plans the extension of its broad-gage railroad, construction of bridges and culverts and erection of various buildings. Joseph Rigney is Mgr., with general offices at 131 State St., Boston, Mass.

The Cuba Co. proposes to build a pipe line at Antilla, Nipe Bay.

PROPOSED ENGINEERING WORK.—Porto Rico.—We are officially advised by Waldemar E. Lee, Brazilian Vice-Consul at San Juan, Porto Rico, that the following projects are contemplated: Municipal electric light plant, San Juan, Porto Rico, using water power of Rio Loiza; Porto Rico Light & Power Co., San Juan, P. R., proposed railway to Ponce, using water power of Rio La Plata; Co. Sucrerie de Porto Rico Ponce, P. R., steam railway to Coamo, about 22 miles; Finlay Bros. & Waymouth Trading Co., San Juan, P. R., a railway has just been opened by this firm from Vega Alta to Dorado, P. R., transportation of cane and passengers, distance 15 kil.; Fajardo Sugar Co., Fajardo, P. R., railroad from Naguabo to Fajardo, transportation of cane and passengers; American Railroad Co. of Porto Rico, extension of its line to Humacao, passing through Caguas, Juncos, Las Piedras and Rio Piedras. A large sugar central is to be constructed at Caguas by a Belgian syndicate. Agents in San Juan, P. R., are Fritze, Lundt & Co.

TUGBOAT AND STEEL BARGES.—Panama.—Bids were opened April 27 at the office of David W. Ross, Gen. Pur. Agent, Isthmian Canal Comn., for one seagoing tugboat, new or secondhand, and for six steel dump barges delivered at Colon. Bids were as follows: Tugs: George Archer, New York, $42,000, $52,000, $60,000, or $58,000, ready for delivery; Angus Cameron, Baltimore, $41,000, delivery seven days; James Clark Co., Baltimore, $47,500, $50,000, $52,500, $55,000, delivery not less than 42 nor more than 56 days; Bernard Tucker, Philadelphia, $52,500, prompt delivery; John Dunn, Key West, Fla., $13,000; Merrill-Stevens Co., Jacksonville, Fla., $47,500; Spedden Shipbuilding Co., Baltimore, $72,000, $65,000, delivery 40 days; W. E. Streeter, $38,000, $50,000; Propeller Towboat Co., Savannah, Ga., $30,000; Roderman Bros., New York, $41,750, delivery 60 days; Samuel Holmes, New York, $65,000, $42,000, $45,000, $53,500, $83,900, $53,400, $63,500, $43,500, $35,000. Barges: Merrill Stevens Co., Jacksonville, $180,000, $201,000; W. S. Streeter, $63,000.

MEXICO.

The names of parties awarded contracts are printed in capital letters.

RAILWAY.—Guanajuato, Guanajuato.—The Mexican Central Ry. Co. is to extend its road from Marfil to Guanajuato. Lewis Kingman, Mexico City, is Ch. Engr.

MINING MACHINERY.—Zacualpan, Mexico.—The United States & Mexico Mining Co., with property at Zacualpan, is to build a 50-stamp mill. Phil. M. Keeffe, Mexico City, is Vice-Pres.

TUNNEL.—Concepcion del Oro Zac.—We are officially informed that the Mazapil Copper Co., Ltd., of Saltillo, Coah., has under consideration a 3-mile tunnel at its mine at Concepcion del Oro.

FACTORY.—City of Mexico.—Joseph Turner has applied to the Dept. of Fomento for a concession to establish a factory, in the City of Mexico, for manufacturing all kinds of plumbing and sanitary supplies.

RAILWAY.—Guadalajara, Jalisco.—JOHN W. SHEPARD & CO., of Mexico City, have been awarded the contract to construct the first 14 kilometers of the Guadalajara-Chapala line, of the Jalisco & Michoacan Ry. Co.

EXPLOSIVE FACTORY. — Chihuahua. — Anderson & Scobell, of the City of Chihuahua, have formed a company to establish a factory for manufacturing a new explosive invented by them. The capital stock is $200,000.

WATER-WORKS. — Durango. — Governor Fernandez of Durango has arranged for the issue of bonds to the amount of $1,600,000, a portion of the proceeds of which is to be applied to the cost of introducing water into the city of Durango.

RAILWAY.—Pacific Coast.—A syndicate, in which B. F. Yoakum, of the Rock Island and 'Frisco systems, and other railroad men and capitalists are interested, is planning to build a railway from Salina Cruz, the western terminus of the Tehuantapec National, 1,000 miles along the west coast to Manzanillo, the western terminus of the Mexican Central.

AUTOMOBILE ROAD.—Ensemada.—E. E. Bailey, American Consul, at Ensemada, informs us, under date of April 10, that T. L. McCarthy, of this city, is interested in project to build an automobile road, between San Diego, Cal., and Ensemada.

OIL STORAGE TANK.—Guadalajara, Jalisco.—A storage tank with a capacity of 20,000 barrels is to be built in the Guadalajara yards of the Mexican Central Ry. The tank will supply oil for fuel for all locomotives on the Guadalajara division.

RAILWAY.—Guerrero.—All the necessary money has been provided to complete the railway from La Dicha to Acapulco, in the state of Guerrero. The road is being built by the La Dicha Mining Co., with headquarters in Washington. The estimated cost of the line is $1,000,000.

LOCOMOTIVES.—Mexico.—A contract has been made by the purchasing department of the National R. R. with the AMERICAN LOCOMOTIVE CO. for five locomotives, to be delivered in August; and with the BALDWIN LOCOMOTIVE CO. for 30 heavy freight and five passenger locomotives.

BELT LINE.—Mexico City.—A concession has been granted the National Ry. Co. for the construction of another link in its belt line around the City of Mexico, from the San Lazaro station to Indianilla, and making connection with the San Rafael and Atlixco Ry. at San Antonio.

GOVERNMENT BUILDING.—Mexico.—It has been decided by the government to erect a new building at the national museum to house an exhibition of objects relating to the archaeology of Mexico. It will be located in the City of Mexico. Architects are invited to present competitive plans.

CARTRIDGE SHOPS.—Mexico.—The war department has authorized the installation of up-to-date shops in the National Foundry, for the manufacture of cartridges. A number of rollers, operated by electricity, will be included in the plant, which will be of sufficient capacity to furnish all cartridges required for the army.

RAILWAY.—Chihuahua.—It is announced that the Southwestern R. R. Co., known as the Phelps-Dodge Co., will construct a 15-mile branch into the heart of the Chihuahua mining district, passing within three miles of the town of Paradise. The road will leave the main line of the Southwestern at Rodeo, N. M. Construction is expected to begin within six months.

WATER POWER DEVELOPMENT.—Saltillo Coahuila.—We are officially advised by Victor L. Duhaime, American Consul at Saltillo, that the Compania de Luz Y Poder Electrica del Saltillo contemplates development of water power at water fall located about 100 miles from this city. It is expected that 25,000 HP. will be generated and transmitted to Saltillo, to be utilized for motive power and for lighting purposes.

HYDRO-ELECTRIC PLANT AND REDUCTION WORKS.—Jalisco.—H. H. Sawyer, Pres., of the Bautista mines, in the state of Jalisco, has applied to the state government for permission to use the waters of the Peruleras arroyo, for generating electric energy to operate reduction works which he will erect. The offices of the company are in Philadelphia. Mr. Sawyer may be addressed at the American Club, Guadalajara, Jalisco.

BARRACKS.—Chihuahua.—The federal government, through the war department, has ordered the erection in the city of Chihuahua of new barracks for troops stationed in that city. It is stated Gen. Jose Maria de la Vega, commanding that district, has received orders, and that work will probably be commenced within 60 days. The barracks will consist of two principal buildings, one for infantry and one for cavalry, with a special building for brigade and regimental officers. About $200,000 will be expended on construction.

ELECTRIC RAILWAY.—Pueblo.—J. A. MacNaught, Traffic Representative of the National lines in the City of Puebla, has obtained a concession from the Puebla State government for the construction of an electric railway, from a connection with the Mexican Central Ry. in the City of Puebla, with rights to build spurs to the various cotton factories along the route, to the city of Atlixco. The road will be known as the Puebla & Southwestern Electric R. R., and, including spurs and sidings, will be about 40 miles long. The cost of construction and equipment is estimated at about $1,000,000.

RAILWAY CONSTRUCTION.—Mexico.—A large amount of money will be expended in railway construction and improvements in Mexico during the coming year. The National will build from San Felipe, in the state of Guanajuato to Guadalajara, Jailsco. The Southern Pacific will expend several millions in its extensions. It is probable a union depot will be commenced, in the City of Mexico, to cost at least $10,000,000, and a union depot and terminals in the city of Vera Cruz, to cost $6,000,000. The conversion of the Interoceanic from narrow to standard gage will, it is estimated, cost $6,000,000.

MINING MACHINERY AND RAILWAY.—Jalisco.—The Amparo Mining Co. is having plans prepared for a 200-ton reduction plant to handle the ores of the Santo Domingo and other mines owned by the company in the Etzatlan district, state of Jalisco. Ore bins, sampling works, and an aerial tramway to convey ore to the mill, which will be situated some distance from the mine, will also be constructed. A standard gage railroad will be built from the mill to connect with the Mexican Central Ry. at Ahualulco. The mill will have 80 stamps, tables and cyanide tanks. Ferdinand Sustersic, Etzatlan, Jalisco, is Gen. Mgr.

RAILWAY.—Jalisco.—A concession for the projected Mexican Central lines into the Autlan and Mascota districts of the state of Jalisco has been granted by the federal government. It is announced that the line from a point on the Manzanillo extension to Autlan will be constructed as soon as possible, but no definite decision has, as yet, been reached in regard to the extension to Mascota. The Autlan line will be, approximately, 130 kilometers in length. The concession provides that at least 33 kilometers must be completed within two years, and the line to Autlan within three years. The line to Mascota must be completed within six years. Lewis Kingman, City of Mexico, is Ch. Engr.

RAILWAY.—Guaymas, Sonora to Guadalajara, Jalisco.—Albert W. Brickwood, Vice-Consul at Nogales, Sonora, in speaking of the great industrial activity in the state of Sonora, reports as follows regarding railways: "Construction is now proceeding on a Mexican Pacific coast trunk line between Guaymas, Sonora, and Guadalajara, in the State of Jalisco. The new line will pass through immensely rich mineral and agricultural sections of the Mexican Pacific slope in the State of Sinaloa, Territory of Tepic and State of Jalisco, the ports of which will be put in direct communication with the City of Mexico. Work is advancing on the new road at a rapid rate. Already several miles of steel rails have been laid, with the grading done on an additional stretch of several miles. It is predicted that 180 miles southerly will have been completed and in operation by August, 1906. Construction up and down from the port of Mazatlan, State of Sinaloa, is to be prosecuted, surveying parties now being in the field. Northerly from Guaymas the Sonora Railway is in operation, crossing the international line at Nogales, and connecting with the Southern Pacific Company at Benson, Ariz."

CONTRACT PRICES.

[Where (*) precedes items under Contract Prices the work was advertised in Engineering News.]

*STEEL FOR REINFORCEMENT OF CONCRETE.—Glendive, Mont.—The bids in detail received by the Reclamation Service, U. S. G. S., on March 12, for supplying steel for reinforcement of concrete, Lower Yellowstone Project, were as follows: (a) JOHN B. KENDALL, Washington, D. C. (awarded contract); (b) St Louis Exposition Fireproofing Co., St. Louis, Mo.†; (c) Crucible Steel Co., Pittsburg, Pa.; (d) Belmont Iron Works, Philadelphia, Pa.‡; (e) Illinois Steel Co., Chicago, Ill.§; (f) Charles K. Barnes & Co., Philadelphia, Pa.§:

BIDS RECEIVED FOR STEEL FOR CONCRETE REINFORCEMENT—GLENDIVE, MONT.

	(a)	(b)	(c)	(d)	(e)	(f)
8,700 lbs. bars, square, ½-in.	$0.016	$0.018	$0.01725	$0.02	$0.016	[1]$0.01775 [2] 0.01825
393,000 lbs. bars, square, ¾-in.	0.016	0.017	0.01725	0.02	0.015	[1] 0.01775 [2] 0.01825
16,450 lbs. bars, square, 1-in.	0.016	0.017	0.01725	0.02	0.015	[1] 0.01775 [2] 0.01825
8,940 lbs. bars, square, 1¼-in.	0.016	0.017	0.01725	0.02	0.015	[1] 0.01775 [2] 0.01825
Total	$6,833.44	$7,269.23	$7,367.31	$8,541.80	$6,415.05	[1]$7,680.86 [2]$7,594.40

Place of delivery stated in bidder's proposal: (a) Pittsburg, Pa.; (b) Youngstown, Ohio; (c) Pittsburg, Pa.; (d) Philadelphia or Pittsburg, Pa.; (e) Milwaukee, Wis.; (f) Franklin, Pa.

†Johnson's corrugated section. ‡At Bidder's option. §Bid informal. [1]Plain square bar. [2]Twisted square bar.

*LOCK GATES.—Pittsburg, Pa.—Bids were received by Major Wm. L. Sibert, U. S. Engrs., on March 30th, for building five pairs of lock gates and anchorages for new Lock No. 3, Monongahela River. The itemized prices were: (1) Penn Bridge Co., Beaver Falls, Pa.; (2) Rochester Bridge & Construction Co., Montour Falls, N. Y.; (3) the Monad Engineering Co., New York; (4) the Owego Bridge Co., Owego, N. Y.; (5) N. D. Yant & Co., Allegheny, Pa.; (6) the American Bridge Co., New York:

BIDS RECEIVED ON MARCH 30 FOR BUILDING FIVE PAIRS LOCK GATES AND ANCHORAGES, PITTSBURG, PA.

Bid No. 1 (All structural parts to be 3 to 4% nickel-steel.)

(Estimated weight for one pair of gates.)	(1)	(2)	(4)
82,130 lbs. nickel steel	$0.07	$0.085	$0.079
2,000 lbs. iron and steel castings	.0645	.08	.075
20 lbs. bronze	.55	.75	.50
3,068 lbs. anchorages	.067	.07	.065
Total	$6,094.66	$7,370.81	$6,847.69

Bid No. 2 (All structural parts to be of medium steel.)

(Estimated weight one pair of gates.)	(1)	(2)	(3)	(4)	(5)	(6)
101,019 lbs. steel	$0.0368	$0.05	$0.0456	$0.049	$0.0325	$0.045
2,950 lbs. iron and steel castings.	.0645	.08	.067	.075	.0425	.07
20 lbs. bronze	.55	.75	.50	.50	.30	.60
3,068 lbs. anchorages	.067	.07	.12	.065	.0575	.10
Total	$4,124.34	$5,516.71	$5,181.28	$5,380.60	$3,590.91	$5,071.16

Delivery: (1) Oct. 1, 1906; (2) Nickel-steel, Feb. 1, 1907, Medium steel, Oct. 1, 1906; (3) 6 months after approval of contract; (4) Nickel steel, Jan. 1, 1907, Medium steel, Sept. 1, 1906; (5) Sept. 15, 1906; (6) Nov. 1, 1906.

UNDERGROUND ELECTRIC LIGHTING CABLES.—Philadelphia, Pa.—Three bids were received on April 7 by the Bureau of Yards and Docks, Navy Dept., for underground electric lighting cables at League Island Navy Yard. The bids in detail were as follows: (1) John A. Roebling's Sons Co., 612 South Broad St., Trenton, N. J.; (2) the National Conduit & Cable Co., Real Estate Trust Building, Philadelphia, Pa.; (3) Standard Underground Cable Co., 618 Westinghouse Building, Pittsburg: 600,000 cm., (1) 71.5 cts. per ft., (2) 76 cts., (3) 81.5 cts.; 500,000 cm., (1) 61.4 cts., (2) 64 cts, (3) 68.8 cts.; 300,000 cm., (1) 43.3 cts., (2) 47 cts., (3) 48.1 cts.; 250,000 cm., (1) 38.5 cts., (2) 41 cts., (3) 43.5 cts.; 200,000 cm., (1) 32.4 cts., (2) 35 cts., (3) 36.3 cts.; 167,805 cm., (1) 28.4 cts., (2) 30 cts., (3) 31.5 cts.; 150,000 cm., (1) 28.4 cts., (2) 30 cts., (3) 32.1 cts.; 133,079 cm., (1) 23.3 cts., (2) 27 cts., (3) 26.1 cts.; 105,592 cm., (1) 20.6 cts., (2) 22 cts., (3) 23.1 cts.; 83,694 cm., (1) 18.1 cts., (2) 19 cts., (3) 20.1 cts.; 66,373 cm., (1) 15 cts., (2) 17 cts., (3) 17.1 cts.; 52,634 cm., (1) 13.6 cts., (2) 15 cts., (3) 15.2 cts; 41,742 cm., (1) 12.7 cts., (2) 14 cts., (3) 14.1 cts.; 33,102 cm., (1) 11.9 cts., (2) 12.9 cts., (3) 13.3 cts.; 26,250 cm., (1) 11.1 cts., (2) 12 cts., (3) 12.5 cts.; two conductors, 41,742 cm., one conductor, 26,250 cm., 32 cts. per ft.; (2) 37 cts., (3) 35.5 cts.; two conductors, 26,250 cm., 20.5 cts., 22 cts., (3) 22.6 cts.; uprights and brackets, (1) $500, (2) $710.

CIVIL SERVICE EXAMINATIONS

ASSISTANT IN ASSAY LABORATORY.—Washington, D. C.—An examination will be held on June 6, by the U. S. Civil Service Commission, to secure eligibles to fill a vacancy in the position of assistant in the laboratory, $1,200 a year, Bureau of the Mint, Treasury Department, and similar vacancies as they may ,occur. Age limit, 20 years. Application form 1312.

MECHANICAL DRAFTSMAN. — Panama Canal.—The U. S. Civil Service Commission announces an examination on June 6-7, 1906, to secure eligibles to fill vacancies in the position of mechanical draftsman under the Isthmian Canal Commission on the Isthmus of Panama, as they may occur, at salaries ranging from $1,200 to $1,800, but usually $1,500 a year. Age limit, 18 to 40 years. Application form 1312.

MECHANICIAN.—Virginia—An examination will be held on May 23-24, by the U. S. Civil Service Commission to secure eligibles to fill a vacancy in the position of skilled mechanics, $1,200 a year, for service in the Weather Bureau at Mount Weather, Va., and vacancies as they may occur in any branch of the service requiring similar qualifications. Age limit 20 years. Application form 1093.

ASSISTANT ENGINEER, DRAFTSMEN, ETC.—New York, N. Y.—The Municipal Civil Service Commission will hold open competitive examinations for the following positions, Board of Water Supply: Assistant Engineer; Topographical Draftsman; Chainman and Rodman. Examinations will be held on May 31, at 10 a. m. The receipt of applications for Assistant Engineer and Topographical Draftsman will close on May 14, and for Chainman and Rodman on May 15. Frank A. Spencer, Secy., 299 Broadway. (Advertised, Engineering News.)

DRAFTSMEN.—Arizona and Idaho.—The U. S. Civil Service Commission announces an examination on June 6-7, 1906, to secure eligibles to fill vacancies in the position of draftsman, at $4 a day each, in the office of the Surveyor-General, as follows: One vacancy each in Arizona, Nevada, and Washington, and four vacancies in Idaho. Persons who pass this examination will be eligible for appointment only in offices outside of the District of Columbia. As the Commission has experienced considerable difficulty in securing eligibles for this position, but two having been obtained as the result of the examinations held on Feb. 20-21 and March 14-15, qualified persons are urged to enter this examination. A number of temporary appointments are made to this position from time to time, and the register established as a result of this examination will be utilized in filling vacancies in both temporary and permanent positions as they may occur. Age limit, 20 years. Application form 1312.

AID, COAST AND GEODETIC SURVEY.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on June 6-7, 1906, to secure eligibles to fill at least six vacancies in the position of aid in the Coast and Geodetic Survey, at $720 a year each, and similar vacancies as they may occur in that Survey. As the Commission has experienced considerable difficulty in securing a sufficient number of eligibles to meet the needs of the service, qualified persons are urged to enter this examination. Age limit, 18 to 25 years. Application form 1312.

LABORATORY ASSISTANT, ASSISTANT PHYSICIST, AND ASSISTANT CHEMIST.—Washington, D. C.—An examination will be held on May 16, by the U. S. Civil Service Commission, to secure eligibles to fill such vacancies as may occur in the positions of laboratory assistant, assistant physicist, and assistant chemist in the Bureau of Standards, at salaries varying from $900 to $1,600 a year, and vacancies as they may occur in any branch of the service requiring similar qualifications. The examination will consist of the first and second subjects mentioned below, except for those desiring a position in chemistry, in which case the third subject will be substituted for the second. Age limit, 20 to 35 years. Application form 1312.

INDUSTRIAL NOTES.

THE BEHR MONORAIL has moved to 80 Wall St., New York.

THE MALES COMPANY has moved to 26 Cortlandt St., New York.

THE PARKER BOILER CO. has moved its Chicago office to 1128 Marquette Bldg.

THE NATIONAL PAINT WORKS CO. has moved its offices rrom 92 to 100 William St., New York.

CHARLES W. LEAVITT, JR., has removed his civil and landscape engineering offices to the St. Paul Building, 220 Broadway, New York.

THE STRAUSS BASCULE & CONCRETE BRIDGE CO., of Chicago, has moved its offices from the Chicago Opera House Block to 903 Fort Dearborn Building.

THE STANLEY-G. I. ELECTRIC MANUFACTURING CO. has opened temporary offices at 67 Blake Block, Oakland, Cal. Several car loads of electrical apparatus have been shipped from Pittsfield to replace machinery recently destroyed.

THE PENNSYLVANIA STEEL CO. announces that it has established separate offices in Chicago, Ill. The new offices, suite 305, Western Union Bldg., will be open for business on and after May 1, with Mr. Robt. E. Belknap as resident agent.

THE HAYDEN AUTOMATIC & EQUIPMENT CO., 26 Cortlandt St., New York, has received from C. F. Hart, Pres. of the Amityville Cement Concrete & Architectural Building Co., of Amityville, L. I., an order for a Hayden concrete block machine.

THE REINFORCED CONCRETE PIPE CO., of Jackson, Mich., has a contract for 30-in. pipe to be used for the Ann Arbor, Mich., city sewer; also contracts for 30-in. pipe for the Pennsylvania R. R., and for 36, 48 and 60-in. pipe, for the Chicago, Milwaukee & St. Paul Ry.

THE CARBOLINEUM WOOD PRESERVING CO., manfacturers of "Avenarius Carbolineum," a material for wood preservation which is applied directly to the timber by brushing or dipping, have removed to 349 West Broadway, New York City. Mr. Ernest F. Hartmann is President of the company.

THE ABNER DOBLE COMPANY, Engineers and Water-Wheel Manufacturers of San Francisco, announce that temporary offices have been opened up at the residence of President W. A. Doble, 2611 Broadway, between Scott and Devisadero Sts., San Francisco, where the business of the company will be conducted for some little time.

HAPGOODS, 309 Broadway, New York, informs us that they are furnishing without charge services in finding a sufficient number of architects, architectural draftsmen, superintendents and other men to help rebuild the city of San Francisco. They have sent a large list of names to Mayor Schmitz, and we are advised that many more can be used to advantage.

THE WHITING FOUNDRY EQUIPMENT CO., Harvey, Ill., has under way a number of important additions to its plant. The extensions comprise a new pattern shop 44 × 96, and an addition, 52 × 130, to the machine shop. The latter will give additional shipping facilities, permitting two tracks to cut through the shops and facilitating the loading of electric traveling cranes and equipment of heavy capacities. These improvements have been made necessary by the steadily increasing business this company is handling.

THE WALZMUHLE, a large flouring mill at Ludwigshafen on Rhein was recently destroyed by fire and is to be rebuilt at once. It was fitted with the most modern machinery, and will, without doubt, contain only such equipment when rebuilt. How far the owners are disposed to purchase abroad we are not fully advised, but we are certain that many manufacturers in the vicinity of Mannheim, Germany, which is a great center for machinery manufacturing, have already considered American machinery owing to the sharpening of competition and the gradual rise of wages.

THE H. W. JOHNS-MANVILLE COMPANY, 100 William St., New York, through its Philadelphia branch, recently completed two of the season's largest contracts for the installation of various pipe coverings in the plants of the hotels, The Marlborough-Blenheim and The Denis, Atlantic City, N. J. In the plant of the former all of the hot, salt and fresh water pipes are covered with "J-M" Moulded, and all steam pipes with the well-known "J-M" 85% Magnesia covering. In The Denis the entire heating system is covered with "J-M" 3-ply asbestos air-cell covering, and high pressure work with 85% Magnesia.

THE B. F. STURTEVANT CO., Boston, Mass., reports that among recent sales of independent automatic engines made by that company may be enumerated the following: International Silver Co., Wallingford, Conn.; Tilghman-Brooksbank Sand Blast Co., Philadelphia, Pa.; Aetna Mills, Watertown, Mass.; The Barnett & Record Co., Minneapolis, Minn.; The Portland Co., Portland, Me.; Larsen-Baker Ice Machine Co., Omaha, Neb.; Baltic Mining Co., South Range, Houghton, Mich.; American Can Co., Lubec, Maine. Among recent sales of economizers may be noted the following: Hamilton Powder Co., Beloeil Station, P. Q.; New Orleans Railways & Light Co., New Orleans, La.; Raritan Copper Works, P[illegible] Amboy, N. J.; Lawton Mills Corporation, [illegible]nfield, Conn.; Haverhill Electric Co., [illegible]rhill, Mass.; Malden & Melrose Gas [illegible] Co., Malden, Mass. A complete wool [illegible]g equipment consisting of fan, heater, [illegible]lvanized iron piping system, is being [illegible]lled for the Merrimack Mfg. Co., Me[illegible]k, N. H.

THE KEEWATIN P[illegible] COMPANY (Ltd.), Keewatin, Ont., [illegible]onstructed a power plant by damming [illegible] West Branch of the Winnepeg River. [illegible] makes the Lake of the Woods, w[illegible]ter area of 1,515 sq. miles and a d[illegible] area of 25,-300 sq. miles, the rea[illegible] reservoir from which power is dir[illegible]pplied. The rate of discharge is esti[illegible] 17,000 cu. ft. per second, which [illegible] head, is equivalent to 34,661 th[illegible] HP., which with 80 per cent. efficie[illegible] the turbines will develop 27,729 effecti[illegible] on the turbine shaft for a period [illegible] hours. The company's land include[illegible]es on the south side of the West [illegible] River and 342½ acres, or almost th[illegible] of Tunnel Island on the north. [illegible]d is well adapted for mill sites, a[illegible] abundance of granite suitable for m[illegible] or concrete building material, and h[illegible] way connections with the Canadian [illegible] Railway. The sale of this plant w[illegible] held at the Russell House, Ottawa, ([illegible]y 5, at 2 p. m., as advertised in E[illegible]ing News. John Kennedy, Montreal, C[illegible] Engr.

CHAS. C. MOORE & CO[illegible] Francisco, Cal., report that they have [illegible]ontract for the steam and electric pla[illegible] the Hotel Del Monte at Monterey, Cal[illegible] plant will include Babcock & Wilcox [illegible], Harrisburg-Fleming tandem-com[illegible] engines, Green fuel economizer, oil[illegible]ing equipment, etc. They also have [illegible]ontract for the light and power plant o[illegible] new Fairmount Hotel at San Fran[illegible]. This will include three Harrisburg-F[illegible] single-cylinder four-valve engines [illegible]-connected to 150 KW. generators, an[illegible] tandem-compound, Babcock & Wilco[illegible]oilers, etc. The company also has the [illegible]ract for a power plant of 15,000 KW. ca[illegible]ity for the Pacific Light & Power Co., of [illegible]os Angeles, to cost about $1,250,000. Th[illegible] will include Babcock & Wilcox boilers, Cha[illegible] Moore & Co.'s oil-burning apparatus, [illegible]reen fuel economizers, Weber reinfo[illegible] concrete smokestacks, Chapman valves, Wheeler & Edwards' condenser apparatus, McIntosh & Seymour combined horizontal-[illegible]ical compound engines direct-connected to General Electric generators of 5,000 KW. [illegible]d Harrisburg tandem-compound exciter [illegible].

THE ARNOLD CO., Chicago, reports its removal from the Marquette Building to the Borland Building, La Salle and Monroe Sts., where it will occupy the entire 16th floor and part of the 17th floor. As engineers and constructors the company is building the Elgin & Belvidere electric railway, a 35-mile interurban road which forms the connecting link between two important electric railway systems in northern Illinois, and is making preliminary reports and estimates on several promising electric railway properties which are being financed or reorganized. It is also preparing plans and specifications for the buildings and entire equipment of the repair shops of the Kansas City Southern Ry. Co., at Pittsburg, Kan., and has just finished the construction of the complete shops for the Cincinnati, Hamilton & Dayton Ry., at Ivorydale, O. This makes the 14th railway shop with which the Arnold Co. has been connected, and it has been retained by the Cleveland, Cincinnati, Chicago & St. Louis Ry. as consulting engineer for the new shops at Indianapolis, which are to be the largest railway repair shops in the country. The company is making preliminary plans and estimates for other steam railways covering the most desirable layout, buildings, construction and shop equipment for proposed electrically driven shops. It has also recently done some very interesting work in calculating the first cost and economy which would result from the electrification of several steam railway branches, and is making plans for two more hydro-electric plants for the Spring River Power Co., near Joplin, Mo., and is constructing a complete 2,000-KW. auxiliary steam plant for this same company. It is doing the preliminary engineering and report work upon three large hydro-electric plants in Colorado, Utah and Idaho. One of these plants is being considered as the source for power for the operation of electric locomotives upon "helper" service on a heavy limiting grade of one of the mountain steam roads. The cmpany states that its policy of handling certain parts of its work, first as engineers and then as actual constructors on a basis of cost plus a percentage has a broadening effect upon its engineering work, as it is constantly in touch with the market for materials and equipment and has also every facility for knowing the actual labor costs upon all classes of work. It is frequently retained in connection with the operation of a property which it has built, so that its field covers the entire range of technical work from the making of the preliminary engineering reports which indicate whether or not the proposed enterprise will pay, to the planning, building, and final operation of the property to demonstrate results.

TRADE PUBLICATIONS.

HOISTING AND CONVEYING MACHINERY.—George F. Westcott C[illegible], Buffalo, N. Y. Paper; 8 × 3¾ ins.; pp. 12; illustrated.

ELECTRIC MOTORS.—Northern Electrical Manufacturing Co., Madison, Wis. Paper, 7 × 10 ins.; pp. 24.; illustrated.

An attractively arranged pamphlet, Bulletin No. 51, shows the features of the Northern "Ring Type" Motors. Machines of this same general form are [illegible] wound as generators for lighting service.

SAWMILL FEEDS.—Allis-Chalmers Co., Milwaukee, Wis. Paper, 8 × 10½ ins.; serial bulletin.

Several old and new carriage feeds for sawmills are illustrated and very briefly described in Bulletin 1702.

MACHINE TOOLS.—Gisholt Machine Co., Madison, Wis. Serial sheets; 7½ × 9½ ins.

A motor-driven and a belt-driven multiple miller, and a motor-driven direct-connected tool grinder, are shown on sheets recently issued.

PIPE BENDS.—Whitlock Coil Pipe Co., Hartford, Conn. Paper, 3¼ × 5¾ ins.; pp. 12; illustrated.

Pipe bends and special pipe joints, some of which are shown in illustrations, are made by this company in wrought iron, steel, brass and copper.

MOTORS AND DYNAMOS.—Electric Machinery Co., Minneapolis, Minn. Paper, 7¾ × 10½ ins.; pp. 12; illustrated.

A compact line of direct current machines furnished either as generators or as motors is concisely described and illustrated in this pamphlet.

STEEL SHEET PILING.—United States Steel Piling Co., 135 Adams St., Chicago. Loose sheets; 7 × 9 ins.

These sheets show half-tone views, with brief particulars, of work in which steel piling was used for cofferdams and general foundation work.

RUST-PREVENTING PAINT. — Detroit Graphite Mfg. Co., Detroit, Mich. Paper; 3½ × 5½ ins.; pp. 9; illustrated.

This little pamphlet briefly discusses rust and graphite paint as a preventative of rust. Several structures on which the company's paints have been used are illustrated.

BLACKSMITHS' TOOLS.—Buffalo Forge Co., Buffalo, N. Y. Paper; 7 × 6½ ins.; pp. 16; illustrated.

Blacksmiths' blowers, forges, hand-operated punches and shears, tire upsetters and post drills are illustrated and priced, in condensed form, in the new catalogue above noted.

BRICK PAVING.—National Paving Brick Manufacturers' Association: President, W. Blair, Terre Haute, Ind. Paper; 8½ × 14 ins.; pp. 6.

This pamphlet contains the instructions and specifications recommended by the association for the best method of laying brick pavement.

JACKS FOR CAISSON WORK.—Geo. W. Jackson, Chicago. Paper; 4½ × 8 ins.; pp. 12; illustrated.

The jacks radiate from a central ring and carry an outer ring or rib, which braces the lagging of the shaft. The jacks and ribs can be adapted to circular or rectangular shafts, trenches, etc.

SURVEYING INSTRUMENTS.—Lallie Surveying Instrument & Supply Co., 1622 Arapahoe St., Denver, Colo. Paper; 3 × 6 ins.; pp. 52.

A vest-pocket solar ephemeris for 1906, containing also some advertisements of surveying instruments, forms a neat publication issued by this company.

COUPLING BOLT FORCER.—Watson-Stillman Co., 46 Dey St., New York. Paper; 6 × 9 ins.

The hydraulic coupling bolt forcer, designed a few years ago, has been built in a variety of special constructions, some of which are illustrated on flier sheets recently printed by the manufacturers.

POWER PLANT ENGINEERING.—Charles C. Moore & Co., Inc., San Francisco, Cal. Paper; 9½ × 12½ ins.; pp. 24; illustrated.

A reprint of a paper entitled "On the Economy of Steam Power Plants Using Oil Fuel," first published in the "Journal of Electricity, Power and Gas."

STEAM TURBINES.—Kerr Turbine Co., Wellsville, N. Y. Paper; 6 × 9 ins.; pp. 8; illustrated.

A multistage steam turbine of the impulse type, with buckets of the Pelton double-cup form, is described in this pamphlet. The speeds quoted are from 4,000 r. p. m. in sizes up to 10 KW., to 1,800 r. p. m. for 200 KW. machines.

SAFETY APPLIANCES.—Wallach Bros., 57 Grace Church St., London, E. C., England. Paper, 5½ × 8½ ins.; pp. 32.

The appliances catalogued here include oxygen respirators, an oxygen first-aid case, portable apparatus for CO_2 determination, electric safety lamps, smoke helmets and masks, eye protectors, absorbent respirators, and the like.

MOTORS AND DYNAMOS.—National Electric Co., Milwaukee, Wis. Paper, 7 × 10 ins.; 8-page serial bulletin.

Bulletin [illegible]7 shows a newly designed line of direct current motors and generators of moderate size, up to 50 HP., called Type "NL." A handsome card bearing a view of a 1,000-KW. frequency changer has also been issued by this company recently.

WATER SOFTENING APPARATUS.—Kennicott Water Softener Co., Railway Exchange Building, Chicago. Paper; 9 × 12 ins.; pp. 54; illustrated.

The Kennicott system or process is described, and a very large number of plants for industrial establishments of various kinds are illustrated. There are also several testimonials from users of these plants.

COMPUTING MACHINES.—Felt & Tarrant Manufacturing Co., Chicago, Ill. Paper; 4 × 6¼ ins.; 6-page folder.

The "Comptometer" has recently been improved so that the operator may strike any number of keys in separate columns simultaneously, without deranging the action. This materially forwards both speed and accuracy of computations made with the machine.

MANUAL OF INSTRUMENTS USED IN ENGINEERING AND SURVEYING.—W. & L. E. Gurley, Troy, N. Y. Cloth; 4½ × 6¾ ins.; pp. 446; illustrated. 50 cts.

This is the 39th edition of this firm's "Manual," which contains much information as to instruments and their use, and is also a descriptive catalogue of a wide range of instruments for surveying and drafting office work.

CONCRETE MIXER.—Standard Machine Co., Kent, O. Paper; 6 × 9 ins.; pp. 4; illustrated.

The Standard machine is built specially for concrete block, sidewalk and curb, sewer work, etc. The materials are dumped into hoppers, from which they are fed by an automatic measuring device to a horizontal trough in which is a shaft with mixing and conveying blades.

FANS AND HEATERS.—New York Blower Co., 25th Place and Stewart Ave., Chicago. Paper, 6 × 9 ins.; pp. 16; illustrated.

This little pamphlet is intended as a condensed catalogue of the company's products. It shows various styles of centrifugal fans and attachments, giving lists of sizes and prices in each case, heater coils for hot blast heating, and engines for driving fans.

SMOKESTACKS AND WALL CONSTRUCTION.—Atlas Construction Co., 611 Missouri Trust Building, St. Louis, Mo. Paper; 3¼ × 6¼ ins.; pp. 4; illustrated.

The structures are built of fireclay blocks having inner and outer faces connected by a small vertical web at the middle. Steel reinforcing bars are set vertically and horizontally as required and the hollow space is then filled with concrete. This construction is known as the Wiederhold system.

WATER GAS APPARATUS.—The Western Gas Construction Co., Fort Wayne, Ind. Paper; 8 × 10½ ins.; pp. 20; illustrated.

This pamphlet deals with the improved Lowe and Western apparatus, different designs of which are illustrated and described, together with particulars of some of the important details. There are also tables of the capacities of the apparatus as made in different sizes.

ATMOSPHERIC CONDENSER. — Whitlock Coil Pipe Co., Hartford, Conn. 6 × 3½-in. folder.

An air condenser presented in this flier is specially devised to eliminate leakage. It consists of pipe bent into coils, the successive lengths being welded together so that all screwed or flanged joints are done away with. The stock size of pipe in these condensers is 2 ins., bent on 4½ or 3½-in. centers.

BASCULE AND CONCRETE BRIDGES.—The Strauss Bascule & Concrete Bridge Co., 805 Opera House Block, Chicago. Paper; 10 × 6¾ ins.; pp. 66; illustrated.

One of the special features of this particular type of bascule bridge is that it requires no tail-pit. Several designs are illustrated, and there are views of bridges already built. The concrete arched bridge is of the ribbed type, but its special feature is that no centering is required in erection.

LABORATORY INSTRUMENTS.—Cambridge Scientific Instrument Co., Cambridge, England. Paper; 8½ × 11 ins.; two 8-page pamphlets.

In Circular No. 37 of the above company, the Grassot fluxmeter is described in a semi-theoretical manner, and the price noted. Circular No. 38 shows the Duddell thermo-galvanometer and a twisted-strip ammeter, both of which have specific features of advantage, which are concisely pointed out.

AIR COMPRESSORS.—Bury Compressor Co., Erie, Pa. Paper; 6 × 9 ins.; pp. 18; illustrated.

Steam or belt-driven compressors of the duplex type are manufactured by this firm. Cross-compounding either or both the air and steam cylinders avoids extreme length, making the compressor nearly square. For pressures exceeding 80 lbs. a 2-stage compressor with an inter-cooler in the base is recommended.

ELECTRICAL MACHINERY.—Ft. Wayne Electric Works, Ft. Wayne, Ind. Serial; 8 × 10½ ins.

Three recently issued bulletins of Ft. Wayne machinery, 1,071, 1,072 and 1,074, describe, respectively, small power motors (both direct and alternating-current), single-phase induction motors, and multiphase induction integrating wattmeters. A well-written instruction book for operating multiphase induction motors has also been issued.

A TYPE OF INTERLOCKING MACHINE.

A novel type of interlocking has been invented by A. Moutier, Engineer of the Northern Ry. of France, and was exhibited at the Liege International Exhibition last year. The system employs a battery of fluid pressure controlling cocks and is adapted for either compressed air or hydraulic power. Great advantages are claimed for it over mechanical interlocking systems. A pamphlet describing it can be obtained from the Aster Co., 74 rue de la Victoire, Paris.

INTERLOCKING AND SIGNALING DEVICES.—Union Switch & Signal Co., Pittsburg, Pa. Paper; 6 × 9 ins.; pp. 72; illustrated.

Sections 16 and 17 of the company's complete catalogue of interlocking and signaling devices have recently been supplemented and corrected. All parts are listed with their prices. The sections noted cover indicators, annunciators, insulators, track drilling machines, trunking for wires and pipes, and some miscellaneous matter.

MULTIPLE PUMPING MACHINERY.—Edward C. Hart & Co., 59 Dearborn St., Chicago. Paper; 5½ × 8½ ins.; pp. 43; illustrated.

The multiple pumps (with horizontal and vertical shafts) have a number of impeller wheels, and may be driven by belting or by electric motors mounted on the shafts. For deep well pumping, the company has centrifugal and plunger pumps and an air-lift system. Blowers, turbines, and small steam and gas engines are also described.

GRINDERS AND POLISHING WHEELS.—Gardner Machine Co., Beloit, Wis. Paper, 6 × 9 ins.; continuous catalogue.

The Gardner Machine Co. was organized about a year ago to manufacture grinders for rapid production in that class of work where grinding is cheaper than planing or milling. A number of catalogue sheets have recently been gotten out by the company, showing several sizes of disc grinder and accessory machines. Some good samples of grinding work are shown in these sheets.

FOUR-CYLINDER BALANCED COMPOUND LOCOMOTIVES. — American Locomotive Co., New York, N. Y. Paper; 9 × 6 ins.; pp. 32; illustrated.

This is a reprint of a paper read before the Railway Club of Pittsburg by Mr. F. J. Cole, Mechanical Engineer of the American Locomotive Co. It discusses the advantages of this type of engine, and refers to some early designs, but is devoted mainly to particulars of modern American and foreign engines for both passenger and freight service.

PNEUMATIC RIDDLE.—Hanna Engineering Works, Chicago, Ill. Paper; 6 × 9 ins.; pp. 24; illustrated.

The Hanna screen shaker, which is built particularly for screening molding sand in the foundry, consists of a small metal tripod carrying at the top a horizontal air cylinder, whose reciprocating piston bears a seat for a regular foundry riddle. The smallest machine is said to handle all the sand through a No. 2 riddle that a man can shovel into it. Several other forms of the device are also made.

AUXILIARY POLE MOTORS.—Westinghouse Electric & Manufacturing Co., Pittsburg, Pa. Paper, 7 × 10 ins.; 12-page serial.

The use of auxiliary poles for solving the commutation problem for variable speed motors for machine tool driving has been made the feature of a line of Westinghouse motors called Type "SA." The machines have cylindrical case and, except for the use of auxiliary poles, are identical with the Type "S" motors previously built by the company. Circular 1117 describes the new machine.

ELECTRICAL MACHINERY.—General Electric Co., Schenectady, N. Y. Paper, 8 × 10½ ins. and smaller; serial.

An index to the serial bulletins of the General Electric Co. was issued a few weeks ago. Three new bulletins are: 4432, an 8-page pamphlet describing a prepayment attachment for wattmeters; 4433, which discusses rotary converters for electric railway service and shows several installations thereof; 4435, showing and listing some simplified forms of switchboard panels for isolated plants. Some smaller publications, which list repair parts of railway motors, regulating rheostats for machine motors, and the prices of measuring instruments, have also been issued very recently.

PUMPS.—The Goulds Manufacturing Co., Seneca Falls, N. Y. Catalogue "D." Cloth; 8¼ × 7¼ ins.; pp. 332; illustrated.

This is a general catalogue of pumps, pump supplies, well tools, sprayers, etc.

FEED-WATER HEATERS.—Warren Webster & Co., Camden, N. J. Paper; 6 × 9 ins.; pp. 32; illustrated.

The Webster feed-water heater, purifier, filter and receiver for capacities ranging from 500 to 5,000 HP. is described. These heaters are of the open type and have the same general construction and method of operation as previous heaters of this company, but are provided with numerous improvements.

PRESSED STEEL POLES.—Pressed Steel Pole Co., Pittsburg, Pa. Paper; 6 × 9 ins.; pp. 18; illustrated.

The pamphlet shows a novel design of poles adaptable to trolley, electric light, semaphore signal, telephone and other work. It consists of two pressed steel angles tapered and assembled by clips joined by bolts passing diagonally through the pole. The resulting pole has a square hollow section tapered from butt to tip. Fittings, such as cross-arms, are clamped to the pole, to avoid through bolting.

LOCOMOTIVES. — Baldwin Locomotive Works, Philadelphia, Pa. Paper; 9 × 6 ins.; pp. 31; illustrated.

This is No. 54 of the company's "Record of Recent Construction," and is devoted to examples of locomotives built for foreign railways. These range from light switching and 26-ton consolidation engines of meter-gage to 75-ton consolidation for the Central Ry. of Brazil (5 ft. 3 ins. gage). The most notable of the engines is a 53-ton Mallet duplex four-cylinder compound (0-6-6-0) for the meter-gage railways of Porto Rico.

SWITCHBOARD INSTRUMENTS AND VARIABLE SPEED MOTORS.—General Electric Co., Schenectady, N. Y. Paper; 8 × 10½ ins.; one 5 pp. and one 12 pp. Illustrated.

Bulletin No. 4429 deals with type R indicating instrument which is claimed to be an accurate, compact and moderate priced instrument for use on alternating and direct-current switchboards. Bulletin No. 4430 is an argument in favor of driving machine tools by separate electric motors of variable speed regulated by a change of gear ratio.

SLIDE RULES.—Eugene Dietzgen Co., Chicago, Ill. Paper, 4 × 7 ins.; pp. 60; illustrated.

A handy and clearly written little treatise on the slide rule has been issued by this company, under the title "Mannheim and Multiplex Slide Rules," by L. W. Rosenthal. The multiplex slide rule is an instrument of the same form as the ordinary rule, but with a slightly different arrangement of scales, which promises considerable convenience for many uses. A list of conversion factors and a price-list of slide rules complete the booklet.

ROLLER BEARINGS.—Hyatt Roller Bearing Co., Harrison, N. J. Paper; 6½ × 8½ ins.; pp. 46; illustrated.

The larger part of this booklet discusses the action of Hyatt bearings and their advantages. Prices of drop hangers and pillow blocks fitted with the flexible roller bearings, also lists of boxes for car axles from 1⁷/₁₆ to 4⁷/₁₆ ins. in diameter, are given. A table of dimensions of Hyatt bearings for shafts of various sizes, and for specific loadings of 200, 400, 600 and 800 lbs. per sq. in. projected area, respectively, may often be found convenient by users of roller bearings.

CARBON DIOXIDE RECORDER.—J. A. Caldwell, 45 Broadway, New York.

The belief has for some time been gaining ground that more money can be saved in the boiler room of a large power plant than at the engine room or switchboard. It is known that the efficiency of the evaporation depends quite closely upon the percentage of carbon dioxide in the flue gases, and in numerous instances it has been found that a close check on the carbon dioxide percentage produced marked fuel saving. The "Ados" automatic carbon dioxide recorder is being introduced in this country by J. A. Caldwell, who has issued some descriptive circular sheets.

ROCK DRILLS, COMPRESSORS AND HOISTING ENGINES.—The J. Geo. Leyner Engineering Works Co., Denver, Colo. Paper; two pamphlets, 7 × 9 ins. and 9 × 7 ins.; pp. 31 and 19; both illustrated.

The first of these pamphlets relates particularly to the "Rock-Terrier" compressed-air drill for use where a small and light one-man machine is required. The drill is made with and without a water-jet apparatus. The second pamphlet is a descriptive catalogue of simple and compound air-compressors operated by steam cylinders or electric motors; also hoisting engines operated by steam or air.

ELECTRIC CRANES.—Niles-Bement-Pond Co., Trinity Bldg., New York City. Paper; 9¼ × 6¼ ins.; pp. 19; illustrated.

The manner in which cranes of this company are now employed for handling heavy material out of doors is illustrated.

ELECTRIC FANS.—Sprague Electric Co., New York City. Catalogue No. 312. Paper; 7 × 9¼ ins.; pp. 31; illustrated.

This catalogue describes different styles of fan motors for both direct and alternating current circuits.

PNEUMATIC TOOLS.—Independent Pneumatic Tool Co., Chicago, Ill. Paper; 9 × 12 ins.; pp. 12; illustrated.

This circular describes the Thor pneumatic drills, hammers, and boring machines for different uses.

INSULATING MATERIAL.—Electric Cable Co., Bridgeport, Conn. Boards; 4¾ × 6½ ins.; pp. 22.

"Voltax" is a high-potential insulating pound. Tests made by the Electrical Testing Laboratories of New York regarding its insulation resistance, etc., together with the compound. Tests made by the Electrical noted.

GAS AND GASOLINE ENGINES.—The New Era Gas Engine Co., Dayton, O. Paper; 8 × 6 ins.; pp. 16; illustrated.

The Little Giant Engine is now made in sizes from 1½ to 20 HP. This is a new line of engines similar to the 5 HP. Little Giant which has been on the market for six years. The 1½ to 4½ HP. engines are vertical, the 5 to 20 HP. horizontal.

CUTTING-OFF MACHINES.—Newton Machine Tool Works, Philadelphia, Pa. Paper; 6 × 9 ins.; pp. 31; illustrated.

The book describes above company's new lines of cold saw cutting-off machines for the rapid cutting of round and square stock, I-beams, channel bars, etc.; also armor plate, nickel steel, and gates or risers on steel castings.

SMELTING APPARATUS.—Traylor Engineering Co., New York City. Bulletin No. 50. Paper; 7 × 9½ ins.; pp. 20; illustrated.

This circular illustrates copper matting furnaces, silver-lead furnaces, forehearths, lead coolers, hot blast stoves, slag trucks, copper converters, cupelling furnaces and blowers.

FIRE BRICK.—Harbison-Walker Refractories Co., Farmers' Bank Bldg., Pittsburg, Pa. Paper; 3¼ × 6 ins.; pp. 15; illustrated.

This is a little work on fire brick for boiler settings. It lists name and sizes of brick carried in stock besides giving information how to lay the same in order to obtain best results.

REINFORCED CONCRETE STRUCTURES AND EQUIPMENT FOR COAL MINES AND WASHERIES.—Roberts & Schaefer Co., 1275 Old Colony Building, Chicago. Paper; 6 × 9 ins.; three pamphlets; each 8 pp.; illustrated.

The pamphlet on reinforced concrete shows views of coal pockets, cinder bins, water tanks, etc., with brief description. The Holmen coal-handling system is also mentioned and the cost of handling by this system is given at 2.62 cts. per ton, compared with 2.85 cts. to 17 cts. by other systems. The other pamphlets show several coal tipples and coal washeries, with the elevators, screens and other apparatus.

ELECTRICAL APPARATUS.—General Electric Co., Schenectady, N. Y. Six circulars; paper; 8 × 10½ ins., 5¼ × 7¾ ins. illustrated.

Bulletin No. 4437 is devoted to straight air brake equipments for electric cars, and list all needed parts.

Bulletin No. 4436 deals with direct and alternating current, automatic carbon break circuit breakers, type C, form G. Dimension charts and carrying capacity tables for the different sizes of breakers are given.

Bulletin No. 4434 describes the General Electric metalized, high efficiency, high candle-power incandescent units. These lamps are for use where a unit between the ordinary 16-candle-power lamp and the arc light is desired.

General Electric Fan Motors is the title of bulletin No. 1051, which describes direct and alternating current fan motors, together with ventilating fan motors and small power motors for running sewing machines, etc.

Bulletin No. 2176 describes universal sockets, shades and portables. By the use of universal fittings the light can be directed as desired, while the lamp itself is concealed from view.

Multiplex lightning arresters, shunt resistance multigap type are described in bulletin No. 2177. They are for use either from line to ground or from line to line.

PUMPS.—Dean Bros. Steam Pump Works, Indianapolis, Ind. Circular No. 54. Paper; 6 × 7 ins.; pp. 16; illustrated.

The Atlantic type steam pumps for boiler feed or pressure are described. These units are all "Uniplex" (single style, double acting) vertical pumps with or without compound steam cylinders and are furnished either singly or in pairs.

DRAFTING ROOM SUPPLIES.—Williams, Brown & Earle, 918 Chestnut St., Philadelphia, Pa. Four circulars.

Two of these circulars are devoted to ink for washing or stamping drawings or tracings, one to a cleaning rubber and one to the Ajax Telescope Adjustable Drawing Stand. This stand is made of metal tubing and is very light. It is therefore very convenient when a portable drawing board is desired.

STREET CAR SPECIALTIES.—J. G. Brill Co., Philadelphia, Pa. Paper; 5¾ × 8¼ ins.; pp. 24; illustrated.

This is a descriptive catalogue of such specialties as track scrapers, sand boxes, radial drawbars, brake shoes and car jacks.

RAIL BRACES AND BASE PLATES.—Niagara Forged Steel Co., Buffalo, N. Y. Paper; 6 × 9 ins.; pp. 4; illustrated.

The devices include ordinary braces, a combined tie-plate and rail brace, bridles to hold rails to gage, and channel base plates for rail joints.

SAND BLAST AND PAINTING DEVICES.—Cooper Process Co., Buffalo, N. Y. Paper; 6 × 9 ins.; pp. 4; illustrated.

These devices are jets or nozzles for the sand-blast or for spraying paint by compressed air for cleaning and painting steel cars, bridges, gas holders, etc.

GRINDING MACHINES.—Luther Brothers Co., North Milwaukee, Wis. Nine Circulars. Paper; 3½ × 6½ ins.; pp. 4; illustrated.

These pamphlets describe hand and foot power carborundum grinding machines, together with carborundum sticks or stones.

PORTABLE GARBAGE CREMATOR.—Smead & Co., 141 E. Fourth St., Cincinnati, O. Paper; 5¾ × 9 ins.; pp. 14; illustrated.

The machine is designed to be hauled through the streets, consuming the garbage as dumped into it from the house cans or collecting carts. It is not stated that any machines are in use.

HYDRANTS AND WATER-WORKS SPECIALTIES.—John C. Kupferle, Second and Mound Sts., St. Louis, Mo. Cloth; 7 × 10 ins.; pp. 80; illustrated.

This is a catalogue and price-list of fire and yard hydrants, street washers, etc., with lists of repair parts. Cesspools, strainers, sewer grates, lawn sprinklers, and air-vents for irrigating pipes are among the specialties.

ELECTRIC GENERATORS.—Fort Wayne Electric Works, Fort Wayne, Ind. Two Bulletins. Paper; 8 × 10½ ins.; pp. 7; illustrated.

Bulletin No. 1,073 is devoted to the multiphase, revolving field, belted generators. Gives no sizes.

Bulletin No. 1,077 describes small direct-current generators, but does not state in what sizes these machines are made.

ELECTRICAL APPARATUS.—Fort Wayne Electric Works, Fort Wayne, Ind. Two Circulars. Paper; 4½ × 6½ ins.; illustrated.

Bulletin No. 3,023 is an instruction book on the type "K" multiphase, induction, integrating wattmeters. Flyer No. 4,504 describes type "EP" porcelain primary fuse box for protecting primary circuits up to and including 2,500 volts and 30 amperes.

FIREPROOF BUILDING CONSTRUCTION.—The National Fireproofing Co., Chicago. Paper; 6 × 9 ins.; pp. 16; illustrated.

The general principles of fireproofing are briefly dealt with, and the construction of the Chicago laboratory of the Fire Insurance Underwriters is described in some detail. The illustrations show the use of the company's various forms of tiling for the floors, roof, ceilings, partitions, stairs, etc., as well as for the protection of the cast iron columns and steel floor and roof framing.

FIREPROOF BUILDING CONSTRUCTION.—National Fireproofing Co., Chicago. Paper; 9½ × 11¾ ins.; pp. 15; illustrated.

This attractive publication describes and illustrates the construction of the extension of the Marlborough-Blenheim Hotel at Atlantic City, N. J., in which the columns and girders are of reinforced concrete, while the walls are of hollow tile and the floors are a combination of hollow tiles with reinforced concrete. Line drawings show some of the structural features, and half-tone engravings show the work in various stages of progress.

CABLE ROLLING ROAD AND CABLE HAULAGE FOR STREET INCLINES.—Isaac D. Smead & Co., Cincinnati, O.; and the Cable Line Construction Co., Columbus, O. Paper; 7 × 10 ins.; pp. 15; illustrated.

The rolling road or traveling incline at Cleveland has been described in Engineering News. The cable line, however, consists simply of an endless cable running in a conduit, and having clamps projecting through a slot in the pavement. These clamps are attached to the axles of wagons, which are thus hauled up the incline.

HEAVY MACHINE TOOLS.—Niles-Bement-Pond Co., 111 Broadway, New York, N. Y. Paper; 9 × 12 ins.; pp. 32; illustrated.

A number of large and excellent half-tone engravings are given of views and tools in the machine shops of the Bethlehem Steel Co., showing such special machines as gun lathes, slotters for gun yokes and crank shafts, boring and rifling machines, planers on gun carriage work and armor plate, boring and drilling machines for armor plate, etc. Also a number of lighter machines in the small gun shops at Bethlehem. There is practically no descriptive matter.

REINFORCED CONCRETE: DESIGN AND CONSTRUCTION.—Expanded Metal & Corrugated Bar Co., 925 to 936 Frisco Building, St. Louis, Mo. Paper; 7 × 5 ins.; pp. 232; illustrated.

The greater part of this book is composed of half-tone views of bridges, buildings, retaining walls and a great variety of other structures built of concrete reinforced with the company's corrugated steel bars. Fine drawings of some of the structures are also given. The introduction deals with the general theory and principles of reinforced concrete, and several pages are devoted to the design and calculation of beams of reinforced concrete, of different sections. Tables are also given for floor slabs and culverts, together with tests of the holding power of steel rods embedded in concrete.

WATER-WHEELS, HYDRAULIC APPLIANCES AND MINING MACHINERY.—Knight & Co., Sutter Creek, Amador County, Cal. (Fulton Iron Works, First St., San Francisco, Cal., Sole Agents.) Paper; 7¼ × 11 ins.; pp. 67; illustrated.

The Knight water-wheel is of the jet or impulse type, with rectangular nozzles having the end shaped to the curve of the wheel and fitted close to the wheel. A reversible plant for hoisting, etc., has on the main shaft two wheels and nozzles, one for each direction. Two or more nozzles may open for the same main nozzle. Several plants operated by Knight wheels are illustrated, and there is a long list of users of these wheels. Other specialties are hydraulic gates for large wheels, centrifugal pumps for dredging, etc. The mining and general machinery portion of the catalogue includes steam hoists for mines, plunger pumps driven by electric motors, rock breakers of the jaw type, machines for cutting mine timbers, guides for stamp mills, grab buckets, etc. Several pages are devoted to hydraulic tables and general information.

For other Proposal Advertisements see pages 43, 44, 45, 46, 47, 48, of Advertisements and Construction News page 170.

PROPOSALS FOR MISCELLANEOUS SUPPLIES, Office Isthmian Canal Commission, Washington, D. C., April 30, 1906.—Sealed proposals, in triplicate, will be received at the office of the General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10.30 a. m., May 21, 1906, at which time they will be opened in public, for furnishing lathes, milling machine, chuck table, feed-water heaters, excavating apparatus for cesspools, pumping apparatus, steam pumps, saw blades, grease cups, pulleys, cleats, lanterns, staples, belt hooks, jackscrews, nails, measuring tapes, padlocks, door and blind hardware, crucibles, hammers, hooks and eyes, ice and blacksmith's tongs, box scrapers, carpenter's tools, twine, sewing palms, steam gages, and cocks, oil cans, sprinkling pots, stencils, mops, harness snaps, car movers, hoisting slings, post drills, gluepots, gardener's tools, rowboat, oars and oarlocks, speed indicators, leather, desks and chairs, piston packing, air brake and air hose, registers, fillet, machine knives, rubber wheelbands, white-pine lumber, locomotive sanders, glass cutters, rivets, track bolts, twist drills, pipe tools, sanitary fixtures, iron pipe and pipe fittings, valves, water-color paints, etc. Blanks and full information (Circular No. 307) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; Custom-House, New Orleans, La.; 36 New Montgomery Street, San Francisco, Cal.; and 410 Chamber of Commerce Building, Tacoma, Wash.; also from Chief Quartermaster, Department of the Lakes, Chicago; Depot Quartermaster, St. Louis; Depot Quartermaster, Jeffersonville, Ind.; Chief Quartermaster, Department of the Gulf, Atlanta, Ga.; and the Commercial Club, Mobile, Ala. D. W. ROSS, General Purchasing Officer. 18-2t

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PROPOSALS FOR INSTALLING HEATING PLANT.—Fort H. G. Wright, N. Y.—Sealed proposals, in triplicate, will be received until 3 p. m., June 1, 1906, and then opened, for furnishing labor and material and installing heating plant in Administration Building here, and making alterations to building. Information furnished on application. Envelopes containing proposals should be marked "Proposals for Alterations to Administration Building, to be opened June 1, 1906," and addressed QUARTERMASTER, Fort H. G. Wright, N. Y., via New London, Conn. 18-4t

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STEAM ROLLERS.

Cincinnati, O.

Sealed proposals will be received by the Board of Public Service of the City of Cincinnati, State of Ohio, at office of said board, until 12 o'clock noon Friday, May 11, A. D. 1906, for furnishing and delivering f. o. b. Cincinnati, one or [illegible] steam rollers of 10 tons each, for the [illegible] Repair Department.

Each bidder is to submit specifications with his bid.

Bids to be accompanied by bond to the sum of five hundred ($500) dollars to the satisfaction of the board, or certified check on some solvent bank, as guaranty that if the bid is accepted a contract will be entered into and its performance properly secured. Should any bid be rejected, such check will be forthwith returned to the bidder, and should any bid be accepted, such check will be returned upon the proper execution and securing of contract.

The right is reserved to reject any and all bids.

By order of the Board of Public Service.

M. J. K[illegible]FE, Clerk.

April 27, 1906. 18-1t

HIGHWAY BRIDGES.

Niagara Falls, N. Y.

Sealed proposals will be received by the Board of Public Works of the City of Niagara Falls, N. Y., until 8 o'clock p. m., May 15th, 1906, for the construction and erection of a steel truss highway bridge of 164 foot span and a width of 65 feet.

Sealed proposals will also be received at the same time for remodeling and erecting one old highway bridge of 141 foot span and 30 feet in width.

Plans and specifications may be seen and bidding sheets obtained at the Office of the City Engineer in the Convention Hall.

All proposals must be made upon blank forms furnished by the City Engineer.

All proposals must be based upon plans and specifications covering the work upon file in the office of the City Engineer.

A certified check on a solvent bank made payable to the City Clerk and City Treasurer of the City of Niagara Falls, N. Y., jointly in the sum of $3,000 shall accompany the bid for the new structure.

A similar check in the sum of $500 shall accompany the bid for remodeling and erecting the old structure.

The Board of Public Works reserves the right to reject any and all bids and to waive any informalities.

WALTER P. HORNE, City Clerk.

17-2t W. W. READ, City Engineer.

STEEL STAND PIPE.

Chatham, Va.

Bids are invited until May 18th, 1906, for the construction of a 94,000-gallon Steel Stand Pipe, on a masonry foundation, for the Town of Chatham, Va. Detailed plans and specifications may be seen at the office of the Mayor, or of the Designing Engineer. Persons residing at a distance may obtain copies of the plans and specifications from the Mayor, by enclosing a check in the sum of $3.00, payable to the Treasurer of Chatham, Va. If plans and specifications are returned promptly, and in good condition, this check will be refunded.

All bids must be accompanied by a certified check in the sum of $200.00, which will become a forfeit to the Town of Chatham, if the bidder fails to enter promptly into a contract, should the work be awarded him. These checks will be returned as soon as the work is let.

After the contract has been awarded the contractor will be required to file a bond of some Security Company satisfactory to the Council of the Town of Chatham, in an amount equal to 15% of his bid, as a guarantee for the satisfactory fulfillment of all the conditions set forth in the contract.

The Town of Chatham reserves the right to reject any or all bids.

For further information address,

J. H. HARGRAVE, JR.,
Mayor of Town of Chatham, Va.

J. N. AMBLER,
17-2t Designing Engineer, Salem, Va.

SEWER.

Rockford, Ill.

Sealed proposals will be received until eleven o'clock A. M., May 15th, 1906, at the office of the president of the Board of Local Improvements, for constructing sewers in portions of Mulberry Street, North Third Street, Tenth Avenue and Court and Summer Streets. Approximately 3,000 feet of nine-inch pipe, 900 feet of ten-inch pipe and 7[illegible]0 feet of 12-inch pipe.

Plans and specifications are on file at the City Engineer's office and will be furnished upon request.

EDWIN MAIN,
City Engineer.

Dated April 26, 1906. 18-1t

NEW COURT HOUSE AND HALL OF RECORDS.

White Plains, Westchester County, New York

Sealed bids or estimates will be received by the Committee on New Court House of the Board of Supervisors of Westchester County, until 11 o'clock a. m., on May 14, 1906, for the erection of a new Supreme Court Building, and an addition to the present Hall of Records, on the Westchester County Court House grounds, at White Plains, New York. The said bids will be opened in the rooms of the Board of Supervisors on said 14th day of May, 1906. Bids must be in sealed envelopes, addressed to Chauncey T. Secor, Chairman, and marked on the outside, "Proposals for New Buildings." Each bid must be accompanied by a certified check for ten thousand ($10,000) dollars payable to Chauncey T. Secor, Chairman of the Board of Supervisors.

The successful bidder will be required to give a bond, and comply with other conditions in the contract, form of which, with plans and specifications, may be seen at the office of the Board of Supervisors, White Plains, N. Y., and at the office of the Architects, Messrs. Lord and Hewlett, 16 East Twenty-third street, New York City.

The bidder must deposit with the architect, not later than May 12, 1906, samples (in six-inch cubes) of the stone on which his bid is based. A portion of these samples will be subject to such tests as the architect shall deem necessary, and the remainder be retained as samples of the material to be furnished. Any stone which does not stand the test satisfactorily will be rejected, and no bid contemplating the use of rejected stone shall be considered. The quality of the stone furnished must conform to the samples presented by the bidder, and kept in the office of the architect.

No bid will be received or considered, unless deposit of samples referred to above are made within the time prescribed, nor unless they conform to the requirements of the specifications and are approved by the architects.

PLUMBING.

Sealed proposals will also be received at the same time and place for plumbing the above buildings. Proposals, contract, plans and specifications for which may be seen as above.

Proposals must be addressed to Chauncey T. Secor, Chairman, marked "Proposals for Plumbing," and accompanied with a certified check for five per cent. of the total amount of such bid.

HEATING AND VENTILATING.

Sealed proposals will also be received at the same time and place, for heating and ventilating the above buildings. Proposals, contract, plans and specifications for which may be seen as above.

Proposals must be addressed to Chauncey T. Secor, Chairman, and marked "Proposals for Heating and Ventilating," and accompanied with a certified check for five per cent. of the amount of such bid.

ELECTRIC WIRING.

Sealed proposals will also be received at the same time and place, for electric wiring, for above buildings. Proposals, contract, plans and specifications for which may be seen as above.

Proposals must be addressed to Chauncey T. Secor, Chairman, and marked "Proposals for Electric Wiring," and accompanied by a certified check for five per cent. of the total amount of such bid.

The committee reserves the right to reject any or all bids.

Dated White Plains, N. Y., April 16, 1906.

16-4t CHAUNCEY T. SECOR,
Chairman of Committee on New Court House.

ROYAL SIAMESE STATE RAILWAYS.

Tenders are requested for the supply of 9 Passenger Locomotives and 7 Goods Locomotives, with spareparts.

Drawings and conditions may be obtained against payment of 1.50 dollar per set at the Siamese Legation in Washington. Sealed tenders with the inscription "Tender for Locomotives" must be forwarded to the undersigned in whose office they will publicly be opened at 10 a. m. on the 12th of September, 1906.

The Director General,
L. WEILER.

Bangkok, the 10th of March, 1906. 18-2t

U. S ENGINEER OFFICE, Army Building, New York, April 7, 1906.—Sealed proposals for dredging in Canarsie Bay, Great South Bay and Huntington Harbor, N. Y., will be received here until 12 M., May 8, 1906, and then publicly opened. Information furnished on application. W. R. LIVERMORE, Col. Engrs. 15-4t

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SECTION NO. 2.

SOUTHWEST LAND TUNNEL.

Department of Public Works, Chicago,
April 23, 1906.

Sealed proposals will be received by the City of Chicago until 11 a. m., Wednesday, May 23, 1906, at Room 224, City Hall, Chicago, for the furnishing of all tools, labor, machinery and appliances of whatsoever kind and description necessary to construct a twelve (12) foot water tunnel about 16,640 feet long and certain nine (9) foot tunnels aggregating about 2,100 feet in length, including certain shafts; said tunnel being known as Section No. 2, southwest land tunnel, according to plans and specifications on file in the office of the Department of Public Works of said city, Room 325, City Hall.

Proposals must be made out upon blanks furnished at said office and be addressed to said department, indorsed "Proposals for Section No. 2, Southwest Land Tunnel," and be accompanied with fifty thousand ($50,000) dollars in money or a certified check for the same amount in some responsible bank located and doing business in the city of Chicago and made payable to the order of the Commissioner of Public Works.

The Commissioner of Public Works reserves the right to reject any or all bids.

A deposit of five dollars ($5.00) will be required to insure the safe return of plans.

No proposal will be considered unless the party offering it shall furnish evidence satisfactory to the Commissioner of Public Works of his ability, and that he has the necessary facilities, together with sufficient pecuniary resources, to fulfill the conditions of the contract and specifications, provided such contract should be awarded to him.

Companies or firms bidding will give the individual names, as well as the name of the firm, with their address.

WM. L. O'CONNELL,
18-1t Acting Commissioner of Public Works.

DEPARTMENT OF THE INTERIOR. Washington, D. C., April 26, 1906.—Sealed proposals will be received at the office of the U. S. Reclamation Service at Mitchell, Nebraska, until 2 o'clock p. m., June 15, 1906, for the construction of about 135 miles of distributing system involving about 720,000 cubic yards of earth work and 11,000 cubic yards of rock work, for the irrigation of lands in the North Platte Valley in Western Nebraska. Particulars may be obtained from the Chief Engineer of the Reclamation Service, Washington, D. C., or the Engineer, Mitchell, Nebraska. E. A. HITCHCOCK, Secretary. 18-4t

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INSTITUTION.

Spring City, Pa.

Sealed proposals will be received to erect an institution near Spring City, Pa., for feeble-minded and epileptics, in care of the Governor's office, Harrisburg, Pa., until 12 o'clock noon, May 15th, 1906, at which time they will be opened in the Reception Room of the Executive Department in the presence of the public by the Commission appointed to erect the institution.

Plans and specifications showing location, etc., may be obtained at the office of the architect, Philip H. Johnson, 1825 Land Title Building, Philadelphia, by depositing the sum of two hundred dollars ($200.00), which will be refunded upon return of the plans and specifications.

Bids from others than those engaged in actual business in the general branches therein mentioned will not be entertained or considered. The commission reserves the right to accept as a whole or in part or reject any or all bids, as may be deemed best for the interest of the Commonwealth.

J. F. SHERWOOD,
18-1t Secretary.

ALTERATIONS TO COURT HOUSE AND JAIL.

Carmel, N. Y.

Plans and specifications for the alterations to the Putnam County Court-House and Jail at Carmel, N. Y., together with heating, water supply, lighting and other works will be on file on and after Thursday, April 26th, with Mr. John W. Towner, Clerk of the Board of Supervisors, Brewster, N. Y., and at the office of William J. Beardsley, Architect, 42 Market Street, Poughkeepsie, N. Y.

Proposals will be received by Mr. John W. Towner, Clerk of Board of Supervisors, Brewster, N. Y., on or before 12 o'clock, Thursday, May 10, 1906.

The proposals will be received for three classes of work, namely, prison work, general construction and for plumbing, heating and lighting.

The Committee reserves the right to reject any or all bids that they may receive for the work. Other conditions are embodied in the specifications.

HENRY MABIE,
EMERSON CLARK,
WALTER A. PERRY,
GEORGE HINE,
Building Committee.

Dated April 25, 1906. 18-2t

WATER-WORKS.

Fostoria, O.

Sealed proposals for constructing the waterworks improvements adjacent to the present water-works pumping station of The City of Fostoria, Ohio, addressed to the Board of Public Service, of The City of Fostoria, Ohio, and endorsed "Proposals for Constructing Water-Works Improvements," will be received by the said Board of Public Service until 12 o'clock noon (standard time) of Monday, May 14, 1906, and then and there publicly opened and read by the Clerk of said Board.

Plans and specifications can be seen and form of proposal obtained at the offices of the Clerk of said Board in Fostoria, Ohio, or the Engineers, The Riggs & Sherman Co., 613, The Nasby Bldg., Toledo, Ohio.

Each proposal shall contain the full name and address of every person, firm or corporation interested in the same and shall be accompanied by a bond with surety or sureties satisfactory to the Board of Public Service, which surety or sureties shall be either persons resident of Fostoria, Ohio, a resident or non resident surety company, or a certified check on a solvent bank for an amount equal to at least 10 per cent. of the bid.

Said bond to be given in favor of The City of Fostoria, Ohio, or check drawn payable to the order of J. H. Twining, Clerk of the Board of Public Service of Fostoria, Ohio, which shall be forfeited if the successful bidder fails to enter into a contract with The City of Fostoria, and furnish the required bond within five (5) days after the notice of acceptance of his proposal is given to said bidder. The bonds or check, or the amount of said check to be returned to the successful bidder upon the execution of the contract, and the furnishing of the required contract bond, which shall be in the sum of fifty (50) per cent. of the amount of the contract with satisfactory sureties for the faithful performance of the work.

All bids will be compared on the basis of the engineer's estimate of the quantities of work to be done, as follows, viz.:

1	Excavation and grading.....	11,462 yards
2	Loam grading	266 yards
4	Brick masonry	3 yards
5	Concrete, class A...........	420 yards
6	Concrete, class B...........	407 yards
7	Steel rods	4.9 tons
11	Cast-iron pipe	8.5 tons
12	Special castings	1,530 lbs.
13	Ten (10) inch gate valves....	6
14	Sixteen (16) inch gate valves.	1
20	Iron grate for intake.......	1
21	Copper screen	1
22	Riprap for creek bank......	550 sq. ft.
23	Removing old pipe and aerator from old filter.	
24	Lumber left in place approx.	20,000 feet
25	Drift bolts	40 lbs.
26	Nails	500 lbs.
27	Cast-iron hood	1

Note:—All vitrified pipe and all filter stone, filter gravel and filter sand, rate controller and float valves are excluded from this contract.

These quantities are approximate, being given only for a uniform basis for comparing bids, and The City of Fostoria reserves the right to increase or decrease the amount of any class or portion of the work as may be deemed necessary.

In the proposal shall be stated separately for each item the price bid for the labor and the price bid for the material.

The Board reserves the right to reject any or all bids or divide the work among the low bidders.

J. H. TWINING, Clerk.

Fostoria, Ohio, April 26, 1906. 18-1t

FORT MEADE, S. D., May 1, 1906.—Sealed proposals, in triplicate, for furnishing and installing electric light fixtures in six sets of officers' quarters, two sets of non-commissioned officers' quarters, one double barrack, constructing secondary and service lines, furnishing transformers and watt meters will be received here until 2 p. m., June 1, 1906. Bidders who are not manufacturers of the goods called for will submit the name of the manufacturer from whom the goods are to be obtained. Information furnished upon application. U. S. reserves right to accept or reject any or all proposals or any part thereof. Specifications may be obtained by application to this office. Envelopes containing proposals should be marked "Proposals for Electric Fixtures Fort Meade, S. D.," addressed Major GEORGE K. HUNTER, Constructing Quartermaster. 18-4t

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PROPOSALS will be received at the Bureau of Navigation, Navy Department, Washington, D. C., until 12 o'clock noon, Thursday, May 31, 1906, and there publicly opened immediately thereafter, for grading at the Naval Training Station, Great Lakes, North Chicago, Illinois. Blank forms of proposals and specifications will be furnished, and plans may be procured upon application to the Commandant, Naval Training Station, Great Lakes, North Chicago, Illinois. 18-2t

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Flexible leather, 5 x 7 inches; 331 pages, 5 sets of tables
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The Engineering News Publishing Company
220 Broadway, New York

REBUILDING TURNPIKE ROAD.

County of Cape May, N. J.

Sealed proposals will be received by the Board of Chosen Freeholders of Cape May County, New Jersey, until twelve o'clock noon of the day of its meeting on the twenty-first day of May, nineteen hundred and six (1906), at Cape May Court House, New Jersey, for the rebuilding of the State and County Road from Ocean View to Sea Isle City, New Jersey, a distance of two and six-tenths (2.6) miles and known as the Sea Isle City Turnpike, according to plans and specifications which may be seen after the twenty-fifth day of April, 1906, at the office of Hon. E. C. Hutchinson, State Commissioner of Public Roads, Trenton, N. J.; at the office of R. Fendall Smith, Engineer, Ocean City, N. J.; at the residence of A. B. Smith, Director, Beesley's Point, N. J.; J. P. Fox, Ocean City, N. J.; C. P. Vanaman, Dias Creek, N. J.; J. D. Ludlam, South Dennis, N. J., and at the office of Dr. Westley R. Wales, Cape May City, N. J.

On the day and date first mentioned all proposals received for said work will be immediately opened and publicly read by the Board of Chosen Freeholders of Cape May County, New Jersey, the said Board reserving the right to reject any or all bids.

Each bid must be accompanied by a certified check to the amount of One Thousand Dollars, drawn payable to the order of Anthony B. Smith, Director of the Board of Chosen Freeholders of Cape May County, New Jersey. The successful bidder will be required to execute, within ten days after contract has been awarded to him, a bond in such sum and with such security as shall be approved by the Board of Chosen Freeholders; said bond shall be in a sum not less than the estimated cost of the road when completed.

Each bidder will be required to submit to the State Commissioner of Public Roads, Hon. E. C. Hutchinson, Trenton, N. J., and to the Engineer, prior to the time of submitting bid for construction, a sample of the gravel he proposes to use in the construction of said roadway.

All proposals shall be marked "Proposals for Sea Isle City Turnpike."

ANTHONY B. SMITH,
Director.
R. FENDALL SMITH,
Engineer. 18-3t

Specifications are on file at office of Engineering News, New York.

SEWERS AND DRAINS.

Pensacola, Fla.

Sealed proposals for the construction of a system of storm-water drains and a system of sanitary sewers for the City of Pensacola, Florida, will be received by the Board of Bond Trustees, at the City Hall, up to 12 o'clock noon of the first day of June, A. D. 1906. Proposals to be addressed to L. Hilton Green, Chairman of the Board of Bond Trustees, endorsed "Proposals for Constructing Drainage and Sewerage Systems."

The work to be done consists of approximately 25,000 lineal feet of storm-water drains from 66 ins. to 10 ins. in diameter, which will comprise Section 1. Section 2 will consist of approximately 42 miles of terra cotta and cast iron pipe sewers from 24″ to 6″ in diameter. Proposals for Section 1 must be accompanied by a certified check for the sum of two thousand dollars ($2,000), and proposals for Section 2 must be accompanied by a certified check in the sum of three thousand dollars ($3,000). Each check so deposited to be drawn upon a bank doing business in the City of Pensacola, Florida, and made payable to the Board of Bond Trustees.

Specifications and blank forms of proposal can be obtained of either L. Hilton Green, at Pensacola, or of the Consulting Engineer, at Wilmington, Delaware; and full sets of plans can be obtained at the latter's office upon the deposit of ten dollars ($10), which deposit will be returned upon the return of the plans in good condition.

The right to reject any and all bids is reserved.

L. HILTON GREEN,
Chairman Board of Bond Trustees.
T. CHALKLEY HATTON,
Consulting Engineer. 18-4t

OFFICE OF THE COMMISSIONERS, D. C., Washington, D. C., April 27, 1906.—Sealed proposals will be received at this office until 12 o'clock noon, Thursday, May 17th, 1906, for constructing a public convenience station in Reservation 33, and for the plumbing work therein, separate proposals for each. Forms, specifications and all necessary information may be obtained at this office. HENRY B. F. MACFARLAND, HENRY L. WEST, CHESTER HARDING, (Acting) Commissioners, D. C. 18-2t

SEWERS.

Waterford, N. Y.

Sealed bids will be received by the Board of Sewer Commissioners, Sewer District No. 2, Town of Waterford, N. Y., at their office in the Town Hall, Waterford, N. Y., until 8.00 P. M., May 16th, 1906, for building a sanitary sewer system (with lateral connections) and a storm water sewer system for said Sewer District No. 2, as per plans, profiles and specifications now on file in the office of Francis A. Martin, Atty. Board of Sewer Commissioners, No. 33 Broad St., Waterford, N. Y.

Separate bids will be received for the construction of each system. Specifications, Proposals and Quantity Sheets may be had upon application to the Engineer.

All bids must be accompanied by a certified check equal to 10% of the bid. Checks shall be made payable to Chas. H. Shoemaker, Treas. Board of Sewer Commissioners, Sewer District No. 2, Town of Waterford, N. Y.

All bids shall be made upon blanks furnished in specifications.

The right is hereby reserved to reject any and all bids as the interest of the Town may appear.

LUKE KAVANAUGH,
Chairman.
THOS. F. GRATTAN, Engineer.
192 Mohawk St., Cohoes, N. Y. 18-2t

ROYAL SIAMESE STATE RAILWAYS.

Tenders are requested for the supply of 67 Passenger Carriages, 7 Guards and Luggage Vans, 265 Goods Wagons; total, 339 Vehicles.

Drawings and conditions may be obtained against payment of 4 dollars per set at the Siamese Legation in Washington. Sealed tenders with the inscription, "Tender for Rolling Stock," must be forwarded to the undersigned in whose office they will be publicly opened at 10 a. m. on the 4th of September, 1906.

For the Ballastwagons (items 15 and 16) tenders have to be submitted by wire (A B C Code 5th edition to be used) or letter not later than the 12th of June, 1906, at 10 a. m.

The Director General,
L. WEILER.
Bangkok, the 15th of February, 1906. 18-2t

WING TO STATE HOUSE.

Trenton, N. J.

Sealed proposals will be received at the State House, Trenton, N. J., until twelve o'clock noon, on Tuesday, May 8th inst., and opened immediately thereafter, for all the labor and material necessary for the complete building and erection of a new wing to the State House, in accordance with the plans, drawings and specifications prepared by the Commissioner of Charities and Corrections. Copies of the same will be on file in the room of the Commissioner of Charities and Corrections at the State House. Contractors must submit with their estimates the names of their sub-contractors. Each bidder must accompany his proposal with a certified check on a Trenton Bank for $5,000, payable to his own order, properly endorsed, as a guarantee that he will enter into a contract for the work if his proposal be accepted. Within ten days after the award or such other time as may be granted for that purpose by the State House Commission, the successful bidder will be required to enter into a contract for the performance of the work, with the bond of an approved security company for $25,000. The right is reserved to reject any or all bids and to waive any defects or informality that may occur in any bids, should it be deemed to the interests of the State to do so.

Proposals must be enclosed in envelopes, sealed and marked "Proposal for new wing, State House, Trenton, New Jersey," and addressed to J. WILLARD MORGAN, Secretary, Trenton, N. J. 18-1t

Situations Wanted

MANAGER with practical engineering and office experience, well grounded in designing, modern foundry and shop practice, including production and cost system, also labor saving and special machinery, desires a position as representative, or would manage a branch office. Has extensive acquaintance in the United States. Member A. S. M. E. Address "E. B. 18," Engineering News, New York. 18-1t

SITUATIONS OPEN

WANTED.—Structural steel inspector. Must have several years' experience in structural steel shops. Address "D. B. 18," Engineering News, New York. 18-1t

DRAFTSMAN.—First-clas[illegible]ker on structural work; man famil[illegible]ith coal and ore handling machiner[illegible]ferred. Apply at once. Only first-cla[illegible] considered. Address "X. A. 16," E[illegible]ering News, New York. 18-1t

ARCHITECTURAL DRAF[illegible]AN.—Wanted, expert on elevated stat[illegible]tails. Must also have experience i[illegible]tural steel frame buildings, stairw[illegible]nopies, etc. Apply by letter or in[illegible]n to H. J. KOLB, Asst. Engineer, [illegible]klyn Rapid Transit System, 85 C[illegible] St., Brooklyn, N. Y. 18-2t

WANTED—One first-class [illegible] engine designer, one having exp[illegible] in designing four-cylinder autom[illegible]ngines, by one of the largest au[illegible] manufacturers in this country. [illegible]ress "B. B. 18," Engineering News, [illegible] York. 18-3t

WANTED—One first-class [illegible]ine draftsman for automobile wor[illegible] who has had considerable experi[illegible] this class of work desired. Addr[illegible] B. 18," Engineering News, New [illegible] 18-3t

WANTED—An assistant eng[illegible] or transitman competent to take [illegible] of field party. Apply to W. I. [illegible]AYES, 254 Huguenot St., New Roche[illegible] N. Y. 18-1t

WANTED—Mechanical draft[illegible] who could adapt themselves to railw[illegible]ecial track work; permanent position[illegible] age, experience and salary exp[illegible] Address all communications to WM[illegible]HARTON, JR., & CO., INC., Station [illegible]ladelphia, Pa. 18-1t

WANTED—Civil engineers f[illegible]iar with trigometrical and logarith[illegible] computations; those familiar with [illegible]y special track work preferred; pe[illegible]ent position; state age, experience [illegible] salary expected. Address all comm[illegible]ations to WM. WHARTON, JR., & C[illegible] INC., Station D, Philadelphia, Pa. 18-1t

Miscellaneous Wants

CAPITALIST or partner with [illegible] wanted to promote a new patent [illegible] reinforced concrete construction. Cost [illegible] fourth to one-fifth less than any oth[illegible]stem now in use. Arrangement po[illegible] characters of an earthquake pro[illegible]ystem at the same time. Happy pro[illegible] for the reedification of San Francisc[illegible] MELLO, Astor Court, Room, 92, New York City. 18-1t

FOR SALE

FOR SALE

Located at Saline City, Indiana, FOUR 4 MILES OF T-RAIL, 60-lb. section, with fastenings.

Located at Morocco, Indiana, THREE 3 MILES OF T-RAIL, 60-lb. section, with fastenings. Apply, THE PATTON & GIBSON CO., Atlanta, Ill. 18-[illegible]

STEAM SHOVEL

FOR SALE

New Model 60 — 1906

Never used; immediate delivery. Failing to get anticipated work, would consider a tempting bonus. Address by letter. Cash offer; if satisfactory will wire reply. Allow several days for delay in mails.

J. P. 18, Engineering News
New York 18-1t

Boilers—Engines—Hoists

NEW AND REBUILT

70-HP. Portable boiler.
2 25-HP. Portable boilers.
25-HP. 42″ × 7½ feet vertical boiler.
2 20-HP. 36″ × 8 feet vertical boilers.
18-HP. 36″ × 7 feet vertical boiler.
15-HP. 36″ × 6 feet vertical boiler.
12-HP. 30″ × 7 feet vertical boiler and smaller sizes.
200-HP. Automatic engine.
175-HP. Fisher 20″ × 30″ engine.
125-HP. Horizontal 16″ × 24″ engine.
125-HP. Automatic engine.
125-HP. Taylor-Beck self-contained automatic engine, and a large stock of smaller sizes to select from.
2 8½″ × 10″ Lambert D. C. single drum mining hoists, 34″ × 28½″ friction drum.
7½″ × 10″ Lambert D. C. three drums, with sprocket attachment for moving derrick car.
7″ × 10″ Lambert D. C. double drum, with Lambert patent boom swinging gear; without boiler.
3 6½″ × 8″ Lambert D. C. double drum, without boilers.
8½″ × 10″ Lambert D. C. double drum, with boiler.
7″ × 10″ Lambert D. C. double drum.

Our stock list sent upon request to interested parties.

Carlin Machinery & Supply Co.
INC.
Sandusky and Lacock Sts., Allegheny, Pa.

FOR SALE

PATENT

FOR METAL BAR FOR REINFORCED CONCRETE WORK

Invented and patented by one of the best-known American concrete experts. Inventor being too busy to give personal attention to manufacture and sale of this Bar, will sell the United States patent and the right to obtain patents in foreign countries.

Inventor is in a position to place large orders for this Bar.

For full particulars address, "A 18," Engineering News, New York.

18-2t